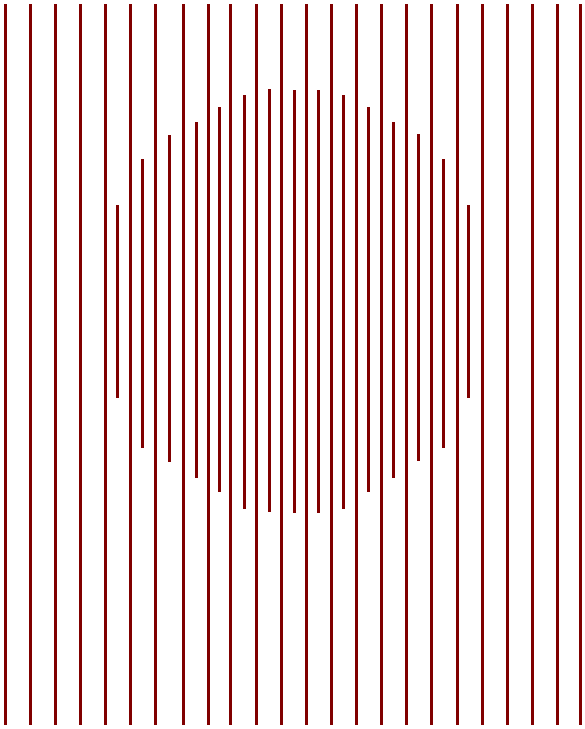
CBO PAPERS

RESTRUCTURING MILITARY MEDICAL CARE

July 1995



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RESTRUCTURING MILITARY
MEDICAL CARE

July 1995

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NOTES

Unless otherwise indicated, all years referred to in this paper are fiscal years.

Numbers in tables may not add to totals because of rounding.

PREFACE

The Department of Defense operates an extensive military medical system, primarily to maintain the capability of combat forces in wartime by providing medical care for active-duty personnel. In peacetime, military medical personnel train for their wartime mission and also provide care for dependents of active-duty personnel and retirees and their families. With the end of the Cold War, wartime requirements for medical care declined so dramatically that policymakers are now faced with the question of whether to maintain a medical establishment that is far larger than needed to perform its primary mission.

This paper, prepared at the request of the House Committee on National Security, examines the way in which the military medical system trains for wartime and the extent to which providing peacetime care contributes to that mission. The paper also analyzes the department's ability to offer peacetime health care cost-effectively. A number of alternative ways of performing the wartime mission and providing health care to eligible military beneficiaries are examined in this paper. But in keeping with the Congressional Budget Office's (CBO's) mandate to provide objective analysis, it makes no recommendations.

Ellen Breslin Davidson of CBO's National Security Division prepared the paper under the general supervision of Cindy Williams and Neil M. Singer. Elizabeth Chambers of CBO's Budget Analysis Division provided the cost analysis under the direction of Michael A. Miller. The author gratefully acknowledges the invaluable assistance of CBO colleague Nathan Stacy, who developed the analysis of wartime medical training, prepared the sections on the Navy's experience with a civilian hospital and the R Adams Cowley Shock Trauma Unit in Baltimore, and assisted with the overall project. The author also wishes to thank Sheila Roquitte for her analysis of the 1992 health care survey of military beneficiaries and Lane Pierrot for her thoughtful review of the paper. Contributors and reviewers in other divisions of CBO included Joseph Antos, Linda Bilheimer, Sandra Christensen, David Delquadro, Julia Jacobsen, Jeffrey Lemieux, and Murray Ross. The author also expresses her appreciation to the many staff members from the Army, Navy, Air

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June E. O' Neill
Director

July 1995

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SUMMARY

The Department of Defense (DoD) currently operates an extensive military medical system that is the chief source of health care for about 6.4 million people, including 1.7 million uniformed personnel. The need for the system stems primarily from its mission to care for military personnel in wartime. In peacetime, military medical personnel train for their wartime mission and also provide care for active-duty personnel, their dependents, and retirees and their families.

With the end of the Cold War, wartime requirements for medical care declined dramatically. Although the size of the medical system has been reduced somewhat in response, recent analysis by DoD has suggested that the department could make additional sharp reductions in the number of facilities and personnel. But military medical officials strongly oppose any further reductions. They contend that military medical facilities and the care they provide in peacetime are critical to train military medical personnel and ensure medical readiness for wartime. They also believe that maintaining a large medical establishment is necessary to attract, recruit, and retain medical personnel.

Nonetheless, the medical establishment DoD plans to maintain for the future is larger than needed to meet wartime requirements. DoD's decision to keep such a large establishment may only be appropriate if two conditions are met: that providing peacetime care contributes to DoD's ability to perform its wartime mission and that the department is able to provide peacetime health care cost-effectively.

DOD'S WARTIME MEDICAL MISSION

In March 1995, DoD released its *Medical Readiness Strategic Plan 1995-2001*, the department's blueprint for handling its wartime mission. Although DoD's plan addresses a range of concerns about wartime readiness, one key aspect that it does not deal with in depth is the question of how adequate medical training is in peacetime. Ensuring that military medical personnel are adequately trained for their wartime roles is a critical aspect of performing the wartime medical mission. Findings by the Congressional Budget Office (CBO), however, indicate that the care furnished in military medical centers and hospitals in peacetime bears little relation to many of the diseases and injuries that medical personnel need to be trained to deal with in wartime.

The war-related injuries and illnesses that are likely to occur in a theater of operations fall into two categories of patient conditions: disease and nonbattle injuries (DNBI) and wounded-in-action (WIA). The results of CBO's analysis reveal that some overlap exists between the cases that military medical personnel treat during peacetime and the diseases and nonbattle injuries that they could expect to treat during wartime. Nevertheless, little correspondence exists between peacetime practice and wounded-in-action conditions.

PEACETIME CARE

The military health care system is one of the largest health care systems in the nation, and one of the most complex systems to manage because of its structure. It consists of two parts: the direct care system of military medical centers, hospitals, and clinics; and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), an insurance program that supplements the care that beneficiaries receive at military medical facilities.

The direct care system, the larger of the two parts, provides the bulk of the care received by military beneficiaries. Although medical services in the direct care system are virtually free of charge to the beneficiary, access to them is limited by the resources available. Active-duty personnel have first priority for care, followed by their family members and then by retirees and their dependents and survivors. When direct care is hard to reach or not available, beneficiaries may use CHAMPUS, but their out-of-pocket costs are higher for most services under CHAMPUS than through the direct care system.

PROBLEMS IN PROVIDING HEALTH CARE

In recent years, DoD has tried to improve the performance of its health care system. At the direction of the Congress, the department has tested several ways to provide health care in an attempt to address three specific problems: the increasing cost of the system, its inefficiencies, and dissatisfaction among beneficiaries.

Cost

From 1979 to 1995--during a period when the overall defense budget first rose but then fell almost to its initial level in real terms--DoD's total medical budget grew by about 65 percent, or from $9.3 billion to $15.3 billion (in inflation-adjusted dollars).

As a share of DoD's total budget, spending on medical care increased from 4 percent to 6 percent.

Inefficiencies

Bringing health care costs under control would require DoD to address inefficiencies in the department's delivery of health care and its allocation of resources. An indication of inefficiency is that beneficiaries use much more health care than do comparable civilians, in part because neither medical providers nor consumers have adequate incentives to control the use of care. DoD's ability to control costs is further limited by its practice of allocating and managing health care resources separately for each military service.

Dissatisfaction by Beneficiaries

A major complaint among beneficiaries is that their access to health care at military medical facilities is poor and that CHAMPUS is not a satisfactory alternative because of its higher out-of-pocket costs. As a group, military beneficiaries who are age 65 or older may encounter more difficulty than other beneficiaries in gaining access to care through the military health care system. Not only are they ineligible to receive care under CHAMPUS, but they are also last in line for care at military medical facilities. Many beneficiaries believe that on the basis of recruiting promises and history they are entitled to free health care for life at military medical facilities, although the law does not guarantee that benefit.

Satisfying beneficiaries while holding down health care costs presents DoD with an impossible set of challenges. Tighter budgets for defense, coupled with the closing of many military medical facilities, will clearly make peacetime health care even more difficult to provide in the future.

THE TRICARE PROGRAM

To address the dissatisfaction of beneficiaries and the need to bring health care spending under control, DoD is moving forward with a new approach to providing health care known as Tricare, which it intends to have fully in place nationwide by 1997. Under Tricare, DoD plans to redesign the military health care system in at

least three ways: adopt several new approaches for financing and delivering health care more efficiently, build on the existing capacity of military medical facilities, and introduce a triple option health benefit structure.

Analysis by CBO, however, indicates that Tricare stops short of making most of the changes needed to remedy the inefficiencies that have plagued DoD's management and delivery of health care. CBO's estimates suggest that, on balance, Tricare will increase DoD's cost of health care delivery. Tricare also seems unlikely to provide different categories of beneficiaries with uniform health care benefits. Because DoD plans to continue charging beneficiaries more for care received in the civilian sector than for care provided in military medical facilities, active-duty members and their families, who already benefit most from the military health care system, will tend to gain at the expense of retirees and their dependents and survivors. Some retirees, particularly those who are eligible for Medicare, may pay more out of pocket for their care than they do today.

ALTERNATIVE APPROACHES TO MILITARY MEDICAL CARE

Neither Tricare nor the *Medical Readiness Strategic Plan 1995-2001* is likely to resolve the problems that DoD faces in providing both wartime readiness and peacetime health care. Instead, the Congress may wish to consider alternative approaches to providing peacetime care while meeting the requirements of wartime. This paper examines how DoD could restructure the military health care system based on the reduction in wartime medical requirements.

Under Tricare, most military medical providers will have a limited opportunity to prepare for their wartime mission. Peacetime patient loads, which already bear little resemblance to battle casualties, will probably also be less relevant in the future to the treatment of other war-related diagnoses than they are today, since fewer retirees and their dependents are likely to receive their care at military medical facilities. Practicing medicine more in the civilian sector--and less on patients in the direct care system--might give military medical providers substantially greater exposure to both DNBI and WIA conditions than they receive today.

To improve wartime training and broaden exposure to WIA conditions, the military services could establish affiliations with civilian shock trauma units. CBO's analysis indicates that shock trauma facilities are likely to provide the best wartime training in trauma care and casualty-related diagnoses. Military medical personnel also need exposure to DNBI conditions, which could be obtained from treating a diverse population of patients, such as those in many civilian hospitals.

Downsizing the military's direct care system to wartime requirements would sharply reduce the number of military medical facilities and personnel, forcing DoD to restructure its provision of health care to military beneficiaries. Active-duty personnel would receive their health care in both military and civilian settings; other beneficiaries would depend entirely on the civilian sector. CBO estimates that downsizing the direct care system and eliminating CHAMPUS eventually could reduce annual costs by about $9 billion. (That estimate does not include the costs of closing military medical facilities, which could be substantial and could defer the realization of savings for several years.) Part of the savings could be used to pay for medical care from alternative sources such as the Federal Employees Health Benefits (FEHB) program.

Such a downsizing would require DoD to strengthen its affiliation with the civilian sector to provide wartime training, employ military medical personnel who are not training in shock trauma units, and meet some of the requirements for caring for active-duty personnel. The department's ability to establish civilian affiliations would depend on local conditions in health care markets, and DoD probably would have to give military medical managers substantial flexibility. Developing closer ties with civilian practice and hospitals might be worth the effort, since it would offer several benefits, including the chance for medical personnel to learn new techniques and work with equipment that might not readily be available in military facilities. Affiliations with civilian hospitals might also offer DoD the advantage during wartime of being able to send recovering casualties to hospitals that are located closer to family members.

One approach to giving military beneficiaries access to civilian health care would be to extend coverage to them through the FEHB program. CBO examined three alternatives based on FEHB coverage: one based on current premium-sharing arrangements between the government and non-postal employees, and two others designed to reduce premium expenses for beneficiaries. The alternatives assume that DoD would ensure that all of its beneficiaries over the age of 65 had full coverage under Medicare.

The FEHB alternatives would give all groups of non-active-duty beneficiaries equal access to medical care through their chosen plans. Today's military health care system does not provide such access, nor will Tricare because of the priorities assigned to different groups. Still, the number of military beneficiaries who would enroll in an FEHB program would vary extensively. A military beneficiary's decision to enroll will depend on a number of factors, including the share of the premium paid by the government and the alternative options that beneficiaries may have for private health insurance.

CBO expects that under the basic FEHB option, fewer dependents of active-duty personnel and retirees and their dependents under the age of 65 would enroll than currently rely on the military health care system. Under either of the enhanced options, enrollment would be substantially higher than current reliance. In all three options, enrollment among beneficiaries who are 65 years of age and eligible for Medicare would exceed current rates of reliance on the military health care system.

Not surprisingly, the total cost to the government would differ under the three FEHB options. The basic option would lead to a total cost to the government of $7.3 billion, or net annual savings of $1.7 billion after downsizing was completed. The other FEHB plans would increase net annual costs to the government by $1.4 billion and $3.1 billion, respectively.

CHAPTER I

INTRODUCTION

The U.S. military today maintains an extensive medical establishment, including hundreds of clinics, hospitals, and major medical centers. Employing thousands of active-duty and reserve physicians and thousands more of medical support personnel, it provides health care to about 6.4 million beneficiaries, either directly (in its own facilities) or by paying for medical care in the civilian sector.

The system of military facilities was developed, chiefly during World War II and the Cold War, to support military operations and military members and their families stationed in places where civilian medical care was not available. Over the years, however, the size and composition of the system have changed in response both to changes in wartime requirements--rising during the Cold War, falling since its end--and to new challenges in providing medical care to active-duty personnel, military family members, and retirees.

REQUIREMENTS FOR MEDICAL CARE

During the Cold War, wartime military medical requirements were based largely on the scenario of an all-out conventional war in Europe. The expected high casualty and injury rates generated demands for far more hospital beds and physicians' services than military budgets could afford. To meet that shortfall, the Department of Defense (DoD) planned for substantial backup hospital capacity through contingency agreements with the Department of Veterans Affairs and through civilian hospitals under agreements with the National Disaster Medical System. Nonetheless, the military services built large medical systems incorporating some 30,000 hospital beds in the United States and requiring the services of 13,000 active-duty physicians.

With the end of the Cold War, the wartime requirements for medical care declined dramatically.[1] Two factors prompted that decline: reductions in the number of active-duty and reserve personnel, and changes in the expected nature of future conflicts. Current defense planning is based on the need to be able to win two nearly

1. See testimony by William J. Lynn, Director, Program Analysis and Evaluation, Office of the Secretary of Defense, before the Subcommittee on Military Forces and Personnel, House Committee on Armed Services, April 19, 1994. The Section 733 Study of the Military Medical Care System was conducted by DoD in accord with section 733 of the National Defense Authorization Act for Fiscal Years 1992 and 1993.

simultaneous major regional conflicts rather than an all-out conventional war. Indeed, so sharply have wartime requirements plummeted that the military medical establishment in the United States now has more than twice the capacity needed to meet the wartime demand for medical care. Thus, basing the size of the system on current requirements could lead to substantial additional reductions in the number of facilities and personnel in the military health care system.

Meanwhile, DoD has also faced the issue of how to use the capabilities of its medical establishment in peacetime. Providing care for active-duty personnel required only a small portion of those capabilities, and deployments and other operational assignments still left the system with substantial excess capacity. The Congress has authorized DoD to use that capacity to provide peacetime care for other members of the military community--dependents of active-duty personnel and retirees, their families, and survivors. By offering peacetime care, DoD hopes to provide a valuable personnel benefit to aid in morale, recruiting, and retention, and to use military hospitals more fully while giving physicians and other medical personnel training in diagnosing and treating a broader range of patient conditions. DoD refers to providing such care as its "peacetime mission," although of course the health care needs of civilian beneficiaries must be met in wartime as well.[2]

APPRAISING WARTIME AND PEACETIME CARE IN A DOWNSIZED MILITARY MEDICAL SYSTEM

The issue of how much the requirements for wartime have actually declined has sparked considerable disagreement. But any significant reduction in the size of the military medical establishment would have a major impact on training and preparation for wartime, as well as on the way that DoD provides health care to the millions of people who rely on the military system.

A downsized system would contain much less excess hospital capacity than at present, and a larger share of physicians and other medical personnel would be assigned to deployable military units rather than to military hospitals and clinics in the United States. Thus, in the future, DoD may no longer be able to provide much peacetime health care in its own facilities. Instead, the department may have to consider other ways to fulfill its commitment to provide for the continuing health care of military beneficiaries.

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2. In Operation Desert Storm, for example, many active-duty medical personnel serving in military facilities were deployed to the Persian Gulf. Their places were taken in many cases by reserve personnel mobilized for the emergency. In a full-scale mobilization in which reserve personnel were needed to care for military casualties, civilian beneficiaries presumably would have to rely on care furnished by the civilian medical sector.

Even during the Cold War, the demand by beneficiaries for medical care exceeded the capacity of military medical facilities. Demands for peacetime care are projected to remain high even though wartime requirements--and the size of active-duty forces--have fallen dramatically. Thus, an increasing gap will arise between the care military beneficiaries need and the ability of the military system to provide it. The private sector, which has always provided some health care for military beneficiaries, will have to play a larger role in the future.

Despite the military drawdown, the demand by beneficiaries for care will remain high largely because of continued growth in the population of military retirees and their dependents and survivors. DoD projects that its total population of beneficiaries will decline between 1989 and 1999 by only about 9 percent, despite a reduction of 27 percent in the number of active-duty members and their dependents who are eligible for care. By 1999, more than 8 million people will remain eligible to receive their care through the military health system, and retirees and their families will make up a larger share--over 50 percent--than ever before.

In principle, DoD could separate its responsibility to provide beneficiaries with access to medical care from its direct provision of care in military facilities. Indeed, given that the department reimburses beneficiaries for care received from civilian providers, it already makes that separation. If it downsized the direct care system and focused a larger share of remaining medical resources on training for wartime, DoD might have to rely primarily on the private sector for peacetime care.

Within DoD, however, substantial opposition exists to the notion that the wartime mission can be separated from the direct provision of care to civilian beneficiaries. Military medical officials contend that reducing facilities and staffing could seriously jeopardize wartime readiness. In their view, military medical facilities and the care those facilities provide in peacetime are essential to train physicians and ensure medical readiness for wartime. In addition, they claim that they must support a large enough training base to attract, recruit, and retain medical personnel and sustain a core of military medical leaders.

IMPROVING WARTIME AND PEACETIME PERFORMANCE

The size of the military medical care system is only one factor in determining the department's ability to carry out its wartime mission and provide peacetime care. DoD must also provide adequate training to its military medical personnel and control its health care costs.

In response to pressures from the Congress and beneficiary groups, DoD has developed plans to reform its provision of peacetime health care while maintaining wartime readiness. The department's plan, known as Tricare--which is discussed in detail in Chapter 4--emphasizes improving the performance of the peacetime health care system. DoD has also evaluated its performance of the wartime mission, with specific reference to problems that surfaced during Operation Desert Storm, and set forth plans for improvement in its Medical Readiness Strategic Plan 2001. Under those plans, DoD would largely preserve the current size of its military medical establishment.

In this paper, the Congressional Budget Office reviews the requirements of wartime readiness and peacetime care and DoD's plans to improve readiness and provide such care. A discussion of alternative approaches in Chapter 5 first analyzes making readiness the focus of a downsized military medical system and then evaluates alternative ways to provide peacetime care to military beneficiaries.

In the face of diminishing wartime requirements, retaining the current military medical establishment can be justified only if two conditions are present: first, the provision of peacetime care must contribute to DoD's ability to perform its wartime mission; and second, the department should be able to provide peacetime health care cost-effectively. It is to those questions that this paper now turns.

CHAPTER II

THE WARTIME MISSION

Medical care of combat forces is an essential element of military capability. The military services have organized their wartime medical systems to provide care in several echelons, beginning with emergency care in combat zones and ranging up to rehabilitation in hospitals in the continental United States. Medical support systems are structured to provide personnel, facilities, and medical logistics at each echelon. The systems also require transportation capabilities to move casualties among echelons and to maintain the flow of medical personnel and supplies.

The details of those systems differ among the military services. For example, the Army focuses on care in forward combat zones, the Navy (and Marine Corps, which is supported by Navy medical personnel) aboard ships, and the Air Force historically on casualties received away from forward areas. Nevertheless, the requirements for resources are similar and underlie wartime planning. When experience (such as that in Operation Desert Storm) has shown that planning or resources are deficient, the Department of Defense and the services have tried to remedy the situation--for example, through the Medical Readiness Strategic Plan. For the most part, those efforts have focused on improving coordination among different echelons of care, evacuation of casualties, and the adequacy of medical equipment and logistics support.

According to the General Accounting Office's review of experience in Operation Desert Storm, other deficiencies appeared in the readiness of medical personnel to be deployed in the right numbers and with the right mix of medical skills. The question of skills raises the issue of whether the way DoD operates its medical system in peacetime adequately prepares medical personnel to perform their wartime missions. The Surgeon General for each military service and DoD have consistently contended that the current practice of using medical personnel to provide peacetime care to a largely civilian population continues to be the best way to train for wartime. The services also claim that such training serves other objectives, such as helping to attract and retain military physicians, and thereby contributes to wartime readiness.

Both because of the importance of having trained personnel and because that issue has largely been omitted from DoD's plans to improve medical readiness, the question of the adequacy of medical training in peacetime is the focus of this chapter. It is important to recognize, however, that many other concerns exist about wartime

readiness and DoD's ability to remedy such problems through its Medical Readiness Strategic Plan.

DoD's MEDICAL READINESS STRATEGIC PLAN 2001

Partly in response to the experiences of Operations Desert Shield and Desert Storm, in March 1995 DoD formally released its *Medical Readiness Strategic Plan 1995-2001*, the department's blueprint for handling its wartime mission. As it stands today, the plan presents a vision for change rather than a detailed statement of how the department intends to improve wartime readiness. DoD believes that it will be able to carry out that vision by evaluating and monitoring readiness as well as through collaborative and consultative efforts by civilian and military staff from the military services and the Director of Logistics (J4) from the staff of the Joint Chiefs.

Although DoD's plan addresses many of the important issues affecting medical readiness, such as the need for joint planning and training, it does not yet lay out specific requirements for resources or offer a schedule specifying how key objectives will be met. Without such detail, it is difficult to assess the department's prospects for improving wartime medical readiness. But the plan at least recognizes one central cause of wartime readiness problems--namely, that DoD historically has placed primary emphasis on providing peacetime care. Even the department has viewed that point as important enough to state that, "In retrospect, the focus during peacetime emphasized health care delivery . . . often at the expense of medical readiness."[1]

MILITARY MEDICAL FACILITIES AS TRAINING GROUNDS

The Department of Defense maintains that military medical facilities provide an excellent training ground for wartime. But findings by the Congressional Budget Office (CBO) indicate that the care furnished in military medical centers and hospitals in peacetime bears little relation to many of the diseases and injuries that medical personnel need to be trained to deal with in wartime.

The range of war-related injuries and illnesses that are likely to occur in a theater of operations falls into two categories of patient conditions:

- *Disease and nonbattle injuries* (DNBI), such as diarrhea, malaria, severe febrile illnesses and infections, or nonpsychotic mental disorders; and,

1. Department of Defense, *Medical Readiness Strategic Plan 1995-2001*, Preliminary Draft (October 1994), p. 37.

- *Combat-induced wounds or wounded-in-action* (WIA), such as open wounds and injuries from blunt and penetrating trauma, burns, or shock.

The mix of DNBI and WIA diagnoses that would need to be treated in an actual deployment would vary with the scale, duration, and location of the deployment, as well as with the nature of the specific scenario. By way of illustration, data on the U.S. marines in Vietnam reveal that about two-thirds of the inpatient diagnoses reported represented disease and nonbattle injuries, whereas the remaining diagnoses reported represented wounded-in-action admissions.

CBO analyzed the match between the diagnoses used to describe DNBI and WIA conditions, which might be expected to occur in theater, and the primary diagnoses among patients treated in military medical centers and hospitals. To conduct that comparison, using a method developed by the Naval Health Research Center, CBO reviewed more than 1 million records for patients in military medical facilities in 1993 (see Appendix A for a detailed description of that method).

Disease and Nonbattle Injuries

Some overlap exists between the cases that military medical personnel treat during peacetime and the disease and nonbattle injuries that they could expect to treat during wartime.

- About 75 percent of peacetime primary diagnoses at military medical facilities match primary diagnoses on the DNBI list. Among the most frequent primary diagnoses that matched, for example, were cases of inguinal hernia, delivery of a baby in a completely normal case, disturbances in tooth eruption, pneumonia, coronary atherosclerosis, and chest pain.

- The most common wartime diagnoses of DNBI conditions, however, do not appear frequently in the peacetime workload of military medical centers. The diagnoses included in the 25 most frequent disease and nonbattle injury categories reported for U.S. marines in Vietnam appear to match only about 20 percent of the 50 most common primary peacetime diagnoses.

In short, those findings show that peacetime medical care provides some training for wartime, but most of the care provided during peacetime is not relevant to even noncasualty wartime patients.

Wounded-in-Action

The value of peacetime practice is even more limited when applied to wounded-in-action conditions.

- Only about 5 percent of the primary diagnoses that military medical personnel treat during peacetime match the diagnosis of a battle-related injury.

- None of the 50 most frequent peacetime diagnoses at military medical centers match a wounded-in-action condition.

In other words, when one compares conditions of battle injury with the diagnoses treated at military hospitals and medical centers, peacetime care gives medical personnel almost no chance to practice their war-related skills and perform war surgery.

Those findings should not be surprising. After all, the diagnoses treated at military hospitals during peacetime reflect the health status and treatment of a wider mix of patients--young and old, male and female--living in far different circumstances than would be the case in wartime. For example, a military beneficiary typically does not face such dangers as fighting an enemy or operating dangerous equipment, which are routine for military personnel during a conflict.

Within the limits set by patient conditions, military medical facilities do in fact provide effective training. For example, medical centers serve as excellent training grounds for residents in graduate medical education (GME) programs, including some training relevant to wartime readiness. But to the extent that it crowds out other training, the treatment that military facilities provide during peacetime makes it difficult for many medical residents to gain adequate training for war-related conditions.

STRONG AREAS OF TRAINING

Despite the infrequency with which war-related injuries and illnesses occur among beneficiaries within the military system, some programs do exist to help medical personnel receive more intensive exposure to battle-related diagnoses.

Integration with the Trauma System

Two facilities--Brooke Army Medical Center and the Air Force's Wilford Hall Medical Center--are a part of the emergency trauma system in the city of San Antonio, Texas. As a result of that unique, if informal, relationship between the military and civilian communities, the Brooke and Wilford Hall emergency rooms routinely receive a substantial number of civilian patients with blunt and penetrating injuries caused by vehicle accidents, fires, falls, and gunshot and knife wounds.

Treating those injuries contributes strongly to wartime preparedness. Military medical personnel also learn other skills that are transferable to a wartime scenario. Examples include becoming familiar with treating patients in emergency conditions; working in a chaotic environment; setting priorities, organizing, and treating a large volume of patients efficiently; and evaluating critically injured patients quickly and providing rapid intervention.

Training Residents for Wartime

During their residency, many military physicians receive a form of training that is similar to the training at Brooke and Wilford Hall. Residents in the military's GME programs, for example, receive trauma training in both the military's medical and civilian facilities. Many civilian facilities serve as clinical training sites for physicians from all three services in their residency programs. The Air Force has at least six such affiliations with civilian facilities, the Navy has seven, and the Army has 13. Of those 26 civilian hospitals, many meet the criteria of the American College of Surgeons for a Level 1 trauma center (for example, they are capable of providing comprehensive emergency care 24 hours a day) and thereby offer training under pressure.

For the most part, however, all of those programs train military physicians only during their residencies. Once physicians complete residency, their exposure to war-related diagnoses is usually restricted to the caseload that they encounter in military hospitals. Of course, one can cite exceptions to that statement. To maintain trauma skills, for example, staff surgeons may take a refresher course run by Wilford Hall in trauma and critical care called TRACCS (Trauma Refresher and Critical Care Course for Surgeons).

Continued Medical Education

Military medical departments also rely on course work to teach both their staff physicians and their residents to care for injured patients. Advanced Trauma Life Support (ATLS) is one such course--less than one week in length--used to teach military medical providers how to care for casualties during the "golden hour," or early phase of treatment.

Although ATLS emphasizes emergency lifesaving skills for treating injured patients, one of the major criticisms of the course is that it emphasizes skills for dealing with civilian trauma over those needed to deal with combat or military trauma.[2] Several suggestions for improving the course emphasize the need to make ATLS more specific to military medical providers by training them in the skills needed to perform war surgery and by using simulated casualty populations based on actual combat casualties instead of civilian trauma victims.[3] But because the American College of Surgeons controls ATLS, DoD has little say in changing its design.

The services offer their medical officers the opportunity to take several other short courses throughout their careers to prepare them for their wartime roles. One such course offered by the Army, which is called the Combat Casualty Management Course (C-4A), teaches senior officers in the medical department how to manage a large number of casualties in a conflict.[4] Other courses, which would not normally be taught in a civilian medical school, are designed to provide medical officers with advanced training in infectious diseases and other potential threats, such as chemical warfare, that could occur in the field.

2. Col. Ronald F. Bellamy, "How Shall We Train for Combat Casualty Care?" *Military Medicine*, vol. 152 (December 1987).

3. For a discussion of the differences between war surgery and surgery in urban trauma centers, see Capt. Arthur M. Smith and Capt. Steven J. Hazen, "What Makes War Surgery Different?" *Military Medicine*, vol. 156 (January 1991).

4. For a description of the courses offered by the Army, see *Medical Corps Professional Development Guide* (Fort Sam Houston, Tex.: Army Medical Department, January 1994).

CHAPTER III

PEACETIME CARE

Medical care is a key part of the total compensation package that the military offers to active-duty personnel and their families; it is also a benefit that retirees and their family members enjoy. Satisfying such a diverse group of beneficiaries, many of whom believe they are entitled to "free" health care for life, has not been easy for the Department of Defense. Tighter budgets for defense, coupled more recently with the closing of many military medical facilities, will make peacetime care even more difficult for DoD to provide in the future.

SOME BACKGROUND ON THE MILITARY HEALTH CARE SYSTEM

About 8.3 million people worldwide are now eligible to receive their care through the military health care system. That number includes the 1.7 million men and women on active duty and about 6.6 million "nonactive" beneficiaries, including dependents of active-duty personnel, retirees and their dependents, and survivors of deceased military personnel. The number of active-duty personnel includes all medically eligible personnel in the full-time Guard and Reserve, Coast Guard, Public Health Service, and National Oceanic and Atmospheric Administration. The number of beneficiaries eligible to receive health care from the military is projected to decrease only slightly in the future (see Table 1).

Yet only about 6.4 million--or about 80 percent--of total eligible people actually rely on the military's system for their care. Some beneficiaries, particularly retirees, depend on sources outside the military (such as Medicare) for some or all of their health care. Others have private insurance, perhaps through their own employment or their spouse's employment, and use it to pay for health care in the civilian sector. Those so-called ghost eligibles, who do not use the military health care system at present, can reenter it at any time.

The Health Care Delivery System

The military health care system is not only one of the largest health care systems in the nation but also one of the most complex to manage because of the way it is structured. The military health care system is made up of two parts: the direct care system and the Civilian Health and Medical Program of the Uniformed Services

TABLE 1. NUMBER OF ELIGIBLE MILITARY HEALTH CARE BENEFICIARIES WORLDWIDE PROJECTED FOR 1999, BY BENEFICIARY CATEGORY AND LOCATION (In thousands)

Location and Age	Active-Duty Personnel[a]	Dependents of Active-Duty Personnel[b]	Retirees and Dependents[c]	All
United States				
Catchment Area[d]				
Under 65	1,201	1,701	1,688	4,590
65 or older	0	4	725	728
Total	1,201	1,705	2,412	5,318
Noncatchment Area[e]				
Under 65	192	372	1,184	1,748
65 or older	0	1	639	641
Total	192	373	1,824	2,389
All Beneficiaries				
Under 65	1,393	2,073	2,872	6,338
65 or older	0	5	1,364	1,369
Total	1,393	2,078	4,236	7,707
Overseas				
Catchment Area[d]				
Under 65	171	134	19	324
65 or older	0	0	2	2
Total	171	134	21	326
Noncatchment Area[e]				
Under 65	53	48	23	123
65 or older	0	0	8	8
Total	53	48	31	131
All Beneficiaries				
Under 65	223	182	42	447
65 or older	0	0	11	11
Total	223	182	52	457
Total				
Catchment Area[d]				
Under 65	1,371	1,835	1,707	4,913
65 or older	0	4	727	731
Total	1,371	1,839	2,434	5,644
Noncatchment Area[e]				
Under 65	244	420	1,207	1,871
65 or older	0	1	648	649
Total	244	421	1,854	2,520
All Beneficiaries				
Under 65	1,616	2,255	2,914	6,784
65 or older	0	5	1,374	1,380
Total	1,616	2,260	4,288	8,164

SOURCE: Congressional Budget Office based on data provided by the Department of Defense.

a. Includes medically eligible personnel in the full-time Guard and Reserve, Coast Guard, Public Health Service, and National Oceanic and Atmospheric Administration.

b. Includes all dependents of medically eligible personnel.

c. Includes survivors.

d. Term used to define an area roughly 40 miles around a military hospital.

e. Term used to define an area outside of a 40-mile radius around a military hospital.

(CHAMPUS), an insurance program that covers most of the cost of care from civilian providers.

In 1995, the Department of Defense will spend $15.2 billion to operate the military health care system, or approximately 6 percent of the total budget for defense. DoD will spend $11.7 billion of that $15.2 billion on the direct care system and other activities such as education and training programs. CHAMPUS will consume the rest. As is the case with most other parts of the defense budget, the entire health care budget is considered a discretionary rather than an entitlement portion of the federal budget.

Beneficiaries who use the military health care system receive most of their care through the direct care portion of the system. CHAMPUS reimburses most of the cost of the remaining care, which beneficiaries receive from civilian providers (see Table 2 for a description of the health benefits offered by the military).

Direct Care System

Hospitals and clinics operated by the Army, Navy, and Air Force make up the direct care system, the larger of the two parts of the military system. It includes more than 120 hospitals plus more than 500 clinics in the United States and overseas. According to DoD projections for 1995, more than 55,000 civilian personnel and about 135,000 active-duty military personnel work for or support the system.

Although the medical services that the direct care system provides are virtually free to the beneficiary, the capacity of facilities, other resources, and a priority system limit access to the system. Statutes regulate the order of priority in which different groups of beneficiaries may receive care at military medical facilities. For example, active-duty personnel are entitled to receive first priority for care.

Other eligible beneficiaries who are not on active duty may use military medical facilities but only when space and resources are available. Family members of active-duty personnel have second priority, and retirees and their dependents and survivors come last. As a practical matter, access to the direct care system for beneficiaries also depends on whether they live close enough to a military medical facility to depend on it as their primary source of care. About 70 percent of the total eligible population--but only about 55 percent of those who are 65 years of age or older--lives within 40 miles of a military hospital. A smaller, but growing, proportion of the total population lives farther than 40 miles away.

CHAMPUS

When direct care is not available, or when military facilities are located too far away, some beneficiaries can use CHAMPUS. That program is only intended to supplement the care that beneficiaries receive at the military treatment facilities. In fact, beneficiaries within hospital service areas must receive authorization to use CHAMPUS from local hospital commanders in the form of a statement of nonavailability, which states that the required care cannot be provided in military facilities. Unlike other fee-for-service insurance plans, CHAMPUS does not require eligible beneficiaries to pay a premium.

Out-of-pocket costs are higher to beneficiaries for most medical services under CHAMPUS than through the direct care system. People eligible for CHAMPUS include dependents of active-duty personnel along with retirees under

TABLE 2. HEALTH CARE BENEFITS UNDER THE CURRENT MILITARY HEALTH CARE SYSTEM

Beneficiary Category	Inpatient and Outpatient	
	Direct Care System	Civilian Providers
Active-Duty Service Members (ADs)	Entitled to care. First-priority access at the military treatment facilities (MTFs).	Not eligible (may receive some specialty and emergency care).
Active-Duty Dependents (ADDs)	Eligible for resource-available care at the MTFs behind ADs.	Entitled to care, but may need a nonavailability statement.
Retirees, Their Families, and Survivors Under Age 65	Eligible for resource-available care at the MTFs behind ADs and ADDs.	Entitled to care, but may need a nonavailability statement.
Retirees, Their Families, and Survivors Age 65 and Over	Eligible for resource-available care at the MTFs behind ADs and ADDs.	Not eligible.

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: A nonavailability statement is a certification from a military hospital that says it cannot provide the care a beneficiary needs. Civilian providers are reimbursed under a fee-for-service program called the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). All beneficiaries must first seek their care through the military treatment facilities. If care is not available or beneficiaries live too far away from an MTF, certain beneficiaries may use civilian providers under CHAMPUS in certain circumstances.

age 65 and their dependents and survivors. Active-duty personnel are not eligible for care under CHAMPUS. When beneficiaries reach age 65, Medicare replaces CHAMPUS coverage.

Managing the Military Health Care System

Managing the military health care system in an efficient manner is difficult. Not one but four organizations and officials participate in its management: the Assistant Secretary of Defense for Health Affairs and the Surgeons General of the Army, Navy, and Air Force. The Assistant Secretary for Health Affairs is the principal advisor to the Secretary of Defense for all health policies, programs, and activities and is responsible for setting policy and overseeing the wartime and peacetime capability of the military health care system. Each service is responsible for managing its own hospitals, clinics, and military medical personnel.

PROBLEMS WITH THE PEACETIME HEALTH CARE SYSTEM

Over the last 10 years or so, providing peacetime health care has been a constant concern for DoD. The department has tested one reform after another under the close scrutiny of beneficiaries, the services themselves, and in many cases the Congress. Most of DoD's reforms have focused on ways to address three specific, yet very different, problems of the military health care system: its increasing cost to DoD, its inefficiencies, and dissatisfaction among beneficiaries. Examples of the demonstration programs that have been tested by the Department of Defense include the Catchment Area Management demonstration and the CHAMPUS Reform Initiative.

DoD's Costs

Over the years, the resources devoted to medical care have steadily increased. From 1979 to 1995, DoD's total medical budget grew from $3.8 billion to $15.3 billion in current (or nominal) dollars. Increases in the cost of CHAMPUS and inflation in medical prices account for much of that growth. But DoD's medical budget has also risen substantially after adjusting for inflation. As measured in 1995 constant dollars, from 1979 to 1995 the total medical budget grew by about 65 percent--from $9.3 billion to $15.3 billion--during a period when the overall defense budget first rose but then fell almost to its initial level (see Table 3). Most of the increase in the total medical budget took place between 1980 and 1990, and the same trend can be

TABLE 3. TRENDS IN DoD's TOTAL MEDICAL BUDGET
(By fiscal year, in billions of dollars of total obligation authority)

Budget Category	1979	1989	1995
	In Nominal Dollars[a]		
Operation and Maintenance	2.0	6.6	9.6
Procurement	0.1	0.3	0.3
Military Personnel	1.5	4.5	5.1
Construction	0.2	0.4	0.3
Total	3.8	11.8	15.3
	In Constant Dollars[b]		
Operation and Maintenance	5.2	9.2	9.6
Procurement	0.1	0.3	0.3
Military Personnel	3.5	5.3	5.1
Construction	0.4	0.5	0.3
Total	9.3	15.2	15.3

SOURCE: Congressional Budget Office based on data provided by the Department of Defense.

NOTE: DoD = Department of Defense.

a. Includes inflation.

b. Measured in 1995 dollars. Calculations of constant dollars were made by constructing a composite index consisting of the medical portion of the consumer price index, the producer price index, and specific deflators published by DoD.

seen in DoD's per capita medical spending. Measured in 1995 dollars, per capita health care costs for the military grew by about 63 percent during that period.[1]

Paying for those increased costs has forced DoD to make trade-offs among programs. In 1995, DoD will spend at least 6 percent of its total budget on the military health care system. By contrast, in 1979 (at a time when the budget for defense roughly equaled today's level), spending on military medical care accounted for less than 4 percent of DoD's total budget. If future spending on medical care either remains level or increases--and if budgets for the department continue to

1. Because of differences between the military and civilian populations, as well as between the benefits offered by the military and the civilian sector, CBO does not compare per capita health care costs for the civilian sector with those for the military.

decline overall--medical care will inevitably constitute an even larger share of DoD's overall budget than it already does.

Inefficiencies in the Military Health Care System

One reason that DoD's health care costs have risen so much is inefficiencies inherent in the department's delivery of health care and its allocation of resources. DoD argues that its direct health care system is more efficient than that in the private sector. Indeed, according to the section 733 study, on a case-by-case basis the costs of comparable medical procedures are lower in military facilities than their average in the civilian sector.

Yet two areas of inefficiency contribute substantially to DoD's difficulties in controlling costs. One is that beneficiaries make heavy use of the military health care system, much more than comparable civilians. In 1992, for example, civilians in the United States under the age of 65 consumed about 530 days of hospital care per 1,000 people and made 4.5 outpatient visits per person. Even after adjusting for the differences in use by age and sex, comparable military beneficiaries consumed about 675 days of hospital care per 1,000 people and made 7.3 outpatient visits per person.

Not just one but several reasons might explain why military beneficiaries use more care than comparable civilians. The most obvious reason is the generosity of the military's health care benefits. For example, military beneficiaries pay little or nothing out of pocket for their health care when they use a military medical facility. Therefore, they have little reason to economize on their use of care.

The way that the military finances, delivers, and manages health care is also important to an understanding of why military beneficiaries use more health care than civilians. Historically, military managers and providers have done little to curb the use of medical services by beneficiaries. In fact, for years DoD provided military medical commanders with funds based on levels of delivery of medical services to beneficiaries, regardless of the necessity or appropriateness of the services. Hospital managers were actually rewarded for delivering more care than necessary in a military treatment facility.

Furthermore, since military medical managers were not accountable for the total amount spent on CHAMPUS--or the total amount of care that beneficiaries received under CHAMPUS--they faced no incentive to coordinate the delivery of care between the direct care system and CHAMPUS. DoD officials note that the military's coordination of care delivered in the direct care system and CHAMPUS has been poor over the years, permitting beneficiaries to use both parts of the military

health care system with relatively few constraints. In principle, the use of nonavailability statements is supposed to limit access to care under CHAMPUS to those cases that the direct care system cannot handle. But poor coordination has probably resulted in overuse of care by military beneficiaries and greater pressures on DoD's medical budget.

Another factor that hampers cost containment is the way that health care resources are allocated and managed throughout the military health care system. Traditionally, the Congress and DoD have carved the total medical budget into many parts, providing each service with its own share of the budget as well as stipulating how much must be spent, for example, on operation and maintenance of the system versus salaries for military medical personnel. Those restrictions have limited DoD's flexibility to ensure that resources are allocated efficiently and that health care is delivered cost-effectively. They illustrate the general problem of how to structure the military's health care delivery system in a way that makes the best use of its resources. To do that, DoD needs to be able to decide whether to provide health care in its own system or to purchase it from the private sector.

How Satisfied Are Beneficiaries?

Despite the substantial number of military treatment facilities that DoD operates, in recent years one of the most persistent complaints among beneficiaries has been their inability to receive care at military medical facilities, forcing them to rely instead on CHAMPUS. But beneficiaries have complaints about CHAMPUS as well. For example, out-of-pocket costs are higher under CHAMPUS than for the nearly free care provided in the direct care system. Moreover, retirees over the age of 65 are excluded from coverage under CHAMPUS when they become eligible for Medicare.

Complaints from beneficiaries will probably rise in the future as more of them find that they cannot rely on military medical facilities. DoD expects that between 1989 and 1999, the proportion of all beneficiaries living outside the service areas of military facilities will jump from 22 percent to 30 percent. That increase will be greater among retirees and their families than among active-duty personnel and their families. By 1999, about 40 percent of the population of retirees and their families--including almost half of those over the age of 65--will live more than 40 miles away from a military medical facility compared with less than 20 percent of active-duty personnel and their families.

Closing so many military hospitals accounts to a significant extent for the rise in population in areas without military medical facilities. But the voluntary relocation of beneficiaries to areas without medical facilities, which may occur when

an active-duty member retires from military service to start a second career, may also explain some of the trend.

Since expectations among beneficiaries vary so extensively, DoD is unlikely to be able to satisfy all of their concerns. The most difficult challenge that DoD faces may lie in attempting to satisfy those beneficiaries who believe that they are entitled to free health care for life at military medical facilities. For example, all of the services promise beneficiaries health care for life. The Air Force even implies that the health care benefits provided will be free of charge to all beneficiaries.[2]

Yet providing all care free of charge to beneficiaries has never been guaranteed by law, and to change existing statutes to create such an entitlement would be prohibitively expensive. Costs would rise substantially for DoD as retirees and their family members began to rely on the military health care system as much as active-duty personnel and their family members do now.[3] Costs would also rise if DoD attempted to extend the same health care benefits--at the same price--to beneficiaries living far from military medical facilities. Since the costs of civilian health care vary widely among geographic regions, the risk of such cost increases would clearly be higher for DoD in some areas of the country than in others.

2. In its recruiting brochure the Air Force says that it will offer retirees "medical and dental care with no deductions for health insurance."

3. Compared with active-duty personnel and their families, retirees and their family members rely on the military health care system less. Based on a survey conducted by DoD in 1984, about 57 percent of retirees and their family members rely on military health care, compared with about 90 percent of active-duty families and 100 percent of active-duty personnel.

CHAPTER IV

THE TRICARE PROGRAM

In 1993, the Department of Defense announced it would move forward with a new approach to military health care known as Tricare. That program builds on the findings of several years of testing and evaluating many new approaches to providing health care and is now under way in certain parts of the country. By the end of 1997, DoD plans to have the Tricare program fully in place nationwide (see Box 1).[1]

CONGRESSIONAL REQUIREMENTS FOR TRICARE

Congressional requirements underlie many of the provisions of Tricare. In an effort to address the concerns of beneficiaries, the Congress directed DoD to establish a uniform health benefit structure nationwide that offered beneficiaries a choice of three health care plans, with one of those three plans modeled on civilian health maintenance organizations (HMOs). In addition, the Congress stipulated that both the triple option and the HMO option by itself--Tricare Prime--must not be any more costly to the government than the present system. Put another way, Tricare Prime by itself--and Tricare as a whole--must be at least budget neutral.[2] Other features of the Tricare program that affect the system of financing and delivering health care in the military are also the result of Congressional requirements. Examples include capitated budgeting, the regional management structure, and the competitive process of awarding managed care contracts.

1. The description of Tricare and the analysis presented in this chapter are based on the proposed rules for the implementation of the Tricare program published in the *Federal Register*, vol. 60, no. 26 (February 8, 1995). Since that time, the Department of Defense has proposed a rule change that would allow retirees and their dependents under the age of 65 who enroll in Tricare Prime (a health benefit option offered under the Tricare program) to receive higher-priority access to care at military facilities than dependents of active-duty personnel who do not enroll in Tricare Prime. That change has not been considered in the description and analysis of Tricare in this chapter. At this time, it is unclear how, or how much, the change would affect Tricare costs or enrollments and access for various groups of beneficiaries.

2. With respect to the Tricare program as a whole, budget neutrality is defined here in accordance with section 720 in the conference report of the National Defense Authorization Act for Fiscal Year 1994: "The combined cost of care in the military treatment facilities and under the Civilian Health and Medical Program of the Uniformed Services will not be increased as a result of the expansion." With respect to Tricare Prime, budget neutrality is defined here in accordance with section 731 of the same statute: "The costs incurred by the Secretary [of Defense] under each managed care initiative that includes the option are no greater than the costs that would otherwise be incurred to provide health care to the covered beneficiaries who enrolled in the option."

BOX 1.
MAJOR OBJECTIVES AND FEATURES OF THE TRICARE PROGRAM

The Tricare program is intended to provide a more uniform set of health care benefits to eligible military beneficiaries and to bring health care spending under control. To achieve those goals, the Department of Defense plans to redesign the military health care system in at least three ways: adopt several new approaches for financing and delivering health care more efficiently, build on the existing capacity of military medical facilities, and introduce a new triple option health benefit structure.

Financing and Delivering Health Care More Efficiently

One of the ways that DoD plans to redesign its system of financing and delivering health care services is through a new management structure. That new structure is based on establishing 12 health service regions within the United States and assigning responsibility for coordinating the financing and delivery of health care in each region to a "lead agent." In each region, DoD will appoint the commander of one of the region's medical centers as the lead agent. Lead agents will have many management responsibilities, including coordinating the delivery of care within the region by military and civilian providers.

DoD is also counting on another new initiative to improve the efficiency of the military health care system. In 1994, the department adopted a new method of financing the health care delivery systems of the military called capitated budgeting. Under capitated budgeting, the department allocates its health care resources to each military department and in turn to each hospital commander. Each allocation is based on a fixed amount per beneficiary for providing all health care to the population within the hospital's defined service area.

Building on the Existing Capacity of Health Facilities

Tricare also introduces a new way for DoD to contract for civilian health care resources by extending fixed-price contracts--placing the contractor at some financial risk for increases in costs--for managed care support services. When fully phased in, those contracts will change the current Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) to include in each region a network of civilian providers that augments the capacity of the military medical facilities. Contractors will also support the lead agents in each region by providing fiscal and administrative support services and by applying managed care strategies such as utilization management at military medical facilities.

Offering a Triple Option Health Benefit Structure

With the support of the managed care contractors, DoD plans to redesign its benefit structure by offering eligible beneficiaries a choice of three options: Tricare Prime, a plan

BOX 1.
CONTINUED

modeled after private-sector health maintenance organizations; Tricare Standard, the standard CHAMPUS benefit plan; or Tricare Extra, a preferred provider option that beneficiaries participating in Tricare Standard are allowed to use on a case-by-case basis.

Tricare Prime is the only one of the three options that requires beneficiaries to enroll. Enrollment would be free for active-duty personnel and dependents, but retirees would pay an annual fee of $230 for single and $460 for family coverage. Beneficiaries who are 65 years of age or older would not be allowed to enroll in Tricare Prime under provisions governing CHAMPUS eligibility. That provision would affect mostly retirees and their families, who make up almost all of the population of older beneficiaries.

All three options would require that beneficiaries seek care through the direct care system before they could receive care from a civilian provider. Access to military medical facilities would continue to be based on today's system of priorities. Hence, active-duty personnel, who would automatically be enrolled in Tricare Prime, would continue to receive first priority for care at a military facility. Family members of active-duty personnel, whom DoD will strongly encourage to enroll in Tricare Prime, would remain second in priority only to active-duty personnel. Retirees and their dependents and survivors would continue to receive lowest priority. Moreover, dependents of active-duty personnel who enrolled in Tricare Prime would receive higher-priority access to the military's health care facilities than those who did not enroll in Tricare Prime.

In using civilian providers, however, each of the health benefit options would work somewhat differently. Similar to a health maintenance organization, Tricare Prime requires beneficiaries to enroll and agree to obtain all of their care from the military health care system through a network of designated civilian and military providers. In return for surrendering some freedom to choose their doctors, enrollees in Tricare Prime benefit from less paperwork, potentially enhanced coverage, and lower out-of-pocket costs than do users of Tricare Standard or Extra when they obtain care from a civilian provider. Tricare Prime offers beneficiaries an additional option to obtain care from civilian doctors outside the network at a higher out-of-pocket cost.[1] (That feature is referred to as a point-of-service option.) But whatever the option--Tricare Prime, Standard, or Extra--beneficiaries who are 65 years of age or older would not be eligible to receive care in the civilian sector and be reimbursed by DoD. That policy is consistent with the rules governing CHAMPUS eligibility.

1. Lewin-VHI, Inc., *Methodology and Assumptions Used in Analysis of Uniform Benefit Options for the MHSS*, Report to the Assistant Secretary of Defense (Health Affairs) (Fairfax, Va.: Lewin-VHI, December 2, 1994).

WILL TRICARE ACHIEVE ITS OBJECTIVES?

Although Tricare attempts to resolve the problems of the military health care system, the program suffers from a number of specific deficiencies in design that call into question its ability to achieve its objectives. Consider, for example, the effects of Tricare on beneficiaries, the efficiency of the military health care system, and the budget.

TABLE 4. HEALTH CARE BENEFITS UNDER THE TRICARE PRIME OPTION OF THE TRICARE PROGRAM

Beneficiary Category	Inpatient and Outpatient	
	Direct Care System	Civilian Providers
Active-Duty Service Members (ADs)	Automatically enrolled. First-priority access to care at the military treatment facilities (MTFs).	Not eligible (may receive some specialty and emergency care).
Active-Duty Dependents (ADDs)	Eligible to enroll. Enrollees are referred by their primary care physician and have access to care on a resource-available basis at the MTF behind ADs.	Enrollees are referred by their primary care physician.
Retirees, Their Families, and Survivors Under Age 65	Eligible to enroll. Enrollees are referred by their primary care physician and have access to care on a resource-available basis at the MTFs behind ADs and ADDs.	Enrollees are referred by their primary care physician.
Retirees, Their Families, and Survivors Age 65 and Over	Not eligible to enroll.	Not eligible.

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: All beneficiaries who are enrolled in Tricare Prime are assigned a military or civilian primary care physician. Before enrollees may receive care in either an MTF or the civilian sector, they must seek a referral from their primary care physician. In most cases, the primary care physician will attempt to refer enrollees to an MTF for their care. However, if care is not available or beneficiaries live too far away from an MTF, certain beneficiaries may use civilian providers under certain circumstances. Civilian provider networks, which are established under managed care support contracts, are reimbursed under a program called the Civilian Health and Medical Program of the Uniformed Services.

Effect on Beneficiaries

The Congressional Budget Office projects that, under Tricare, DoD will not be able to meet its Congressional mandate of offering beneficiaries a more uniform and stable benefit nationwide. Active-duty members and their families, who account for over 60 percent of current users of military health care, would receive improved access at lower cost. But some retirees and their dependents and survivors, who make up the remainder of users, may find their access to treatment in military facilities more limited. Others may even find the costs of their care higher than they do currently (see Tables 4 and 5). The reasons are threefold.

TABLE 5. HEALTH CARE BENEFITS UNDER THE TRICARE EXTRA AND TRICARE STANDARD OPTIONS OF THE TRICARE PROGRAM

	Inpatient and Outpatient	
Beneficiary Category	Direct Care System	Network of Civilian Preferred Providers or Non-Network Civilian Providers
Active-Duty Service Members (ADs)	Receive care under Tricare Prime.	Not eligible.
Active-Duty Dependents (ADDs)	Eligible. Access to care on a resource-available basis at the military treatment facilities (MTFs) behind ADs and ADD Prime enrollees.	Eligible, but may need a nonavailability statement.
Retirees, Their Families, and Survivors Under Age 65	Eligible. Access to care on a resource-available basis at the MTFs behind ADs and ADDs.	Eligible, but may need a nonavailability statement.
Retirees, Their Families, and Survivors Age 65 and Over	Eligible. Access to care on a resource-available basis at the MTFs behind ADs and ADDs.	Not eligible.

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: A nonavailability statement is a certification from a military hospital that says it cannot provide the care a beneficiary needs. All beneficiaries must first seek their care through the military treatment facilities. If care is not available or beneficiaries live too far away from an MTF, certain beneficiaries may use civilian providers under certain circumstances. Civilian provider networks are established under managed care support contracts. Civilian providers are reimbursed under a program called the Civilian Health and Medical Program of the Uniformed Services.

First, the services intend to continue to provide access to care at military medical facilities on the basis of priority status and to charge more for care in the civilian sector than for care received at a military medical facility.[3] Consequently, many retirees and their families will continue to receive less access to care at military facilities and will pay more for their care than active-duty personnel and their families.

Those provisions may have the most effect on retirees and their families who are eligible for Medicare, since they will not be able to enroll in the Tricare Prime option and will not receive coverage from the military for any of the care that they receive in the civilian sector.[4] As a result, beneficiaries who are eligible for Medicare will tend to receive more of their care from civilian providers reimbursed under Medicare or some other payer in the future. In view of that situation, DoD has stated that it would offer beneficiaries eligible for Medicare the opportunity to enroll in Tricare Prime if it had more money. Thus far, DoD has unsuccessfully pursued legislation authorizing reimbursement from Medicare to pay for the care that military treatment facilities furnish to beneficiaries eligible for Medicare (see Box 2).

Second, DoD's policy of enrolling as many active-duty personnel and their families as possible in Tricare Prime and delivering as much of their care as possible in military facilities would limit access to military medical facilities for retirees and their families even more than is true today.[5]

Third, many beneficiaries will not receive the opportunity to enroll in Tricare Prime and instead will have to pay substantially more in Tricare Standard or Tricare Extra. One reason for the limited availability of Tricare Prime is that DoD will find it difficult to meet the requirement of budget neutrality if it offers the plan in areas outside hospital catchment areas (areas within 40 miles of a military treatment facility), since the costs of civilian health care are likely to exceed the cost of care in military facilities. Not only do beneficiaries living outside catchment areas pay more of the cost of their care, but on average they rely more on nonmilitary sources for their care than do beneficiaries who live near military hospitals.

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3. Under Tricare Prime, however, copayments for some medical services will be almost the same regardless of where the care is provided.

4. Under the rules governing eligibility for CHAMPUS, DoD cannot pay for the cost of care received in the civilian sector for beneficiaries who are eligible for Medicare.

5. Lewin-VHI, Inc., *Methodology and Assumptions Used in Analysis of Uniform Benefit Options for the MHSS*, Report to the Assistant Secretary of Defense (Health Affairs) (Fairfax, Va.: Lewin-VHI, December 2, 1994).

BOX 2.
MEDICARE REIMBURSEMENT FOR MILITARY CARE

Who should bear the cost of care furnished by military medical facilities to beneficiaries eligible for Medicare? The Congress debated that issue last year, although the issue has been discussed for years. In 1996, about 1.2 million retired military personnel and their dependents who are eligible for Medicare insurance coverage will also be eligible to receive care in the medical facilities of the Department of Defense. For a number of reasons, including the access to available space that those beneficiaries are granted, roughly 30 percent of them will actually use military health care. But for those who do use it, DoD will pay the cost of care out of its annual appropriations, with no reimbursement from Medicare.

During last year's Congressional debate, both the House and Senate Armed Services Committees considered proposals to authorize Medicare to make payments to DoD to cover the cost of such care (termed "Medicare subvention"). Similar proposals have been made in this Congress. One approach included in many proposals is to provide for payments based on the overall rate per enrollee, or capitated amount, that Medicare currently uses to reimburse eligible organizations, such as health maintenance organizations, that have Medicare risk-sharing contracts. Beneficiaries who choose to use the military health care system would have to designate DoD as the sole provider of care, meaning that they would be required to enroll in the Tricare program.

The budget stakes in this issue are significant. In estimating the costs of last year's proposals, the Congressional Budget Office assumed that roughly the same number of beneficiaries eligible for Medicare who receive most of their care in military facilities today--about 25 percent of the eligible population--would enroll in a DoD Medicare health maintenance organization (HMO) option. Based on that assumption, total Medicare payments to DoD would amount to about $2.7 billion by 2000.

Last year's legislation on Medicare subvention was subject to the pay-as-you-go procedures of budget enforcement. It allowed DoD to spend any amounts it collected from Medicare without subsequent appropriation action. In budget parlance that is called "direct spending" and to be deficit neutral would require offsetting reductions in mandatory or entitlement spending or increases in revenues. Without specific legislative remedies, the increase in Medicare spending for beneficiaries treated in military facilities would simply constitute an additional expenditure from the Medicare Hospital Insurance Trust Fund, which is already projected to run short of funds early in the next century.

One might ask whether a compensating reduction in DoD's appropriations would not maintain deficit neutrality? It would not because DoD's appropriations are tracked along with other discretionary spending on a separate "scorecard" from pay-as-you-go spending. As long as discretionary spending has fixed caps, any savings in DoD's budget from Medicare subvention can be spent on other defense or nondefense discretionary programs. Thus, enacting Medicare subvention alone would increase the deficit by the amount of the Medicare payment.

Securing reimbursement from Medicare on the basis of capitated payments would help DoD to defray the cost of providing health care, but it would not necessarily guarantee beneficiaries eligible for Medicare any better access to a military facility than they have today. Access to a military facility would continue to be determined on the basis of location, capacity, and priorities. DoD could arrange for an enrollment option for those eligible for Medicare in areas without military facilities. But doing so would simply duplicate benefits currently available from Medicare HMOs in the civilian sector.

Another reason that many beneficiaries will not receive an opportunity to enroll in Tricare Prime has to do with the differences among regional civilian health care markets--a factor totally beyond the control of DoD. Constrained by the requirement for budget neutrality, DoD will be better able to offer Tricare Prime in noncatchment areas with developed networks of managed care providers (and thus, perhaps, lower costs of care) than in other noncatchment areas where managed care markets are less mature. Hence, the availability of the Tricare Prime option will vary even among noncatchment areas.[6]

Effect of Tricare on the Efficiency of the Military Health Care System

Tricare stops short of making most of the changes that are needed to remedy the inefficiencies that have plagued DoD's management and delivery of health care. Improving coordination among the services--and between the direct care system and CHAMPUS--is one essential factor. Lead agents need to know the number of beneficiaries in their regions, and each lead agent requires the flexibility to reallocate personnel and resources among facilities operated by different military services and between the military and civilian parts of the system.

In addition, controlling the total volume of care demanded by beneficiaries would require placing tight restrictions on their use of care in both CHAMPUS and the direct care system. Copayments could modify the incentives of beneficiaries to use more care than may be medically necessary. Premiums could encourage beneficiaries to commit themselves to opt in or out of the military system. Even with Tricare's management changes, however, the military health care system would probably fail to achieve the significant savings and efficiencies that the Congress has sought and that more tightly managed systems of care have produced in the civilian sector.

Management Approach Maintains Autonomy of the Services. Under current plans for Tricare, lead agents assigned to organize the delivery of health care on a regional basis will lack the authority they need. Tricare retains the current command and control structure of the three separate services. As a result, since commanders will continue to report to their separate services, a lead agent from one service is likely to find it difficult to exert authority over hospital commanders from other services. Capitated budgeting might help a lead agent by introducing strong incentives for the services to coordinate the delivery of care for beneficiaries in each region. But

6. Removing the requirement that the HMO option by itself be budget neutral would offer DoD greater flexibility to provide all beneficiaries with the triple option benefit structure, but it could also add to the budgetary pressures on the department to hold down the overall cost of the Tricare program.

whatever benefits capitated budgeting offers are likely to be compromised by DoD's plans to continue to allocate resources separately through each service under a capitated financing system. Under that approach, the number of beneficiaries to be served within that service area will determine each hospital commander's resources. As a result, the lead agent will have only limited ability to allocate resources among the various facilities within his or her region.

Poor Coordination Between Direct Care and CHAMPUS. Similarly, Tricare does not achieve its objective of creating a "seamless" system of care between the direct care system and CHAMPUS, even though that goal is vital to managing the total volume of care that beneficiaries receive. Tricare allows civilian contractors to manage care in the civilian sector and the military medical manager to retain separate authority over decisions about use in military facilities.[7] Decisions about the use of care by a military hospital commander would not have to be binding on the private contractor providing managed care support within that hospital commander's jurisdiction. Nor would decisions by a contractor that certain types of care were medically unnecessary have to be binding on a military hospital commander, who might choose to furnish such care if resources were available.

Population Remains Undefined. Another key weakness of Tricare is that the population will remain undefined. Historically, DoD has been unable to plan accurately because it has had no enrollment system for beneficiaries. Beneficiaries can move in and out of the system as they please, relying on it for all, some, or none of their care. DoD has relied on surveys to determine how many beneficiaries use the system and to what extent the military is their primary or secondary source of coverage.

Tricare begins to build a better foundation for DoD by requiring enrollment in the Tricare Prime option. But the department would still face a challenge in planning for those who decide not to enroll in Tricare Prime, be they beneficiaries who use the system today or ones who are not currently using it. Those factors introduce considerable uncertainty: CBO estimates that less than half of the non-active-duty beneficiaries using the system today will enroll. Furthermore, about 30 percent of those eligible to use military health care in the United States--2 million beneficiaries--do not do so at present. That "ghost" population would continue to create major cost and management uncertainties under Tricare.

An efficiently managed system would require DoD to be able to identify the population for whom health care is to be provided. Military providers need to be able to plan for the health care needs of a defined population to develop per capita budgets

7. This rule was proposed by DoD and published in the *Federal Register*, vol. 60, no. 26 (February 8, 1995).

and build cost-effective health care delivery networks. Those strategies can be put into effect only if all eligible beneficiaries commit themselves either to use a military plan or to rely on civilian sources of care. That could be accomplished by establishing a universal enrollment requirement for all beneficiaries who plan to use the military health care system.

Imposing a universal requirement that all beneficiaries enroll in the military health care system as a precondition to their use of that system, however, may be beyond the reach of DoD. A few years back, the department proposed a policy of enrollment that would lead to excluding beneficiaries from the military facilities if they did not enroll. The Congress vetoed that policy in response to the pleas of beneficiaries. Instead of using sticks to enroll beneficiaries, the Congress directed DoD to use carrots.[8] The triple option benefit structure--which provides beneficiaries with the option to enroll and incentives to do so--is an outgrowth of that process.

Even if DoD could adopt a universal enrollment requirement, charging military beneficiaries a premium might be viewed by beneficiaries as a reduction in the benefits they receive from the military today. Moreover, because military beneficiaries receive the bulk of their health care benefits in-kind, many would find their disposable income substantially reduced, particularly if their share of the premiums was set at levels approaching those in civilian plans. As a result, DoD would probably have to decide whether to compensate military beneficiaries for all or some part of the premium expense that they would have to pay for medical care.

Effect of Tricare on the Budget

The Congressional Budget Office's estimates suggest that Tricare will increase DoD's costs of health care delivery, despite the statutory requirement that Tricare not raise government costs. CBO estimates that, without Tricare, government costs for the peacetime mission would total $9.4 billion in 1996. That amount includes only those costs that the Tricare program would affect: the cost of care for all beneficiaries in the United States, through CHAMPUS and the direct care system, without the Tricare program. CBO estimates that if Tricare was fully operational in 1996, those costs of DoD's peacetime health care mission would probably increase by about 3 percent, or about $300 million, to $9.7 billion (see Table 6).

8. In section 715 of the conference report for the National Defense Authorization Act for Fiscal Year 1993, the Congress directed DoD to use positive incentives to encourage military beneficiaries to enroll in a health care plan offered by the military.

Based on those estimates, achieving budget neutrality would probably require reductions in the number of beneficiaries served by DoD or some other compensating adjustment, such as higher copayments for care. But as long as the opportunity to use the military health care system remains available to the population of "ghosts"--2 million people--DoD may find such reductions impossible to make.

The Tricare program affects the cost of providing health care to military beneficiaries because of its effects on the behavior of both beneficiaries and providers. Several features of the Tricare program would increase the cost to the government of providing health care to military beneficiaries, whereas other features of the program would lower that cost. Budget neutrality would depend of course on the department's ability to generate sufficient savings under the Tricare program to offset its cost increases.

Among those features of Tricare that would increase the cost to the government are lower out-of-pocket costs for beneficiaries under Tricare Prime and Tricare Extra, the expected increase in demand from offering more generous benefits, and the higher administrative costs to the government of replacing the traditional CHAMPUS program with managed care support contracts.

Other features of the Tricare program could lower the cost to the government. DoD intends to lower the cost of providing care to beneficiaries in military facilities and in the civilian sector by applying management strategies to curb the use of care

TABLE 6. CBO'S ESTIMATES OF CHANGES IN COSTS FOR FISCAL YEAR 1996 UNDER VARYING ASSUMPTIONS ABOUT THE TRICARE PROGRAM

	Net Change in Baseline (In millions of dollars)	Percentage Change from Baseline
Base Case	300	3
Optimistic Case	-100	-1
Pessimistic Case	500	6

SOURCE: Congressional Budget Office.

NOTE: Costs are measured as a percentage change in total government costs without the Tricare program. CBO used a baseline of $9.4 billion in its calculation. That amount of base spending includes only those costs that would be affected by the Tricare program.

BOX 3.
MODIFICATIONS THAT COULD IMPROVE THE TRICARE PROGRAM

Working with the Congress, the Department of Defense could modify Tricare to address several potential problems raised in this section. The major challenge facing DoD at the moment is to create a tightly structured financing and delivery system out of two subsystems that are largely independent today: the military's direct care system and the civilian services purchased by the military. Although a majority of the care that the military provides to its beneficiaries is delivered at military facilities, a significant portion of the total care is provided to them in civilian settings. That is, about 25 percent of the total outpatient care that the military provides to its beneficiaries--and almost 35 percent of the total number of inpatient days--are covered under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

Some of the changes that could be made to the Tricare program are discussed below. All of them are intended to enhance DoD's chances of reducing costs by helping the department make the military health care system operate more efficiently.

A Triservice Command and Control Structure

A triservice command and control structure would provide each lead agent with management control over all personnel and resources within the region, including those from other services. Resources would no longer be allocated separately through each service but would go directly to the lead agent.

An Integrated Management Approach to Utilization

DoD could substantially improve its ability to control the total volume of care delivered to military beneficiaries by better integrating the utilization review activities throughout CHAMPUS and the direct care system. One way to do that would be to assign responsibility for utilization review activities within a region to only one party, either the civilian contractor for managed care support services or the hospital commander.

A Requirement for Universal Enrollment

With the support of the Congress, DoD could adopt the requirement that all beneficiaries who plan to use the military health care system enroll in a military health care plan. Military providers need to be able to plan for the health care needs of a defined population in order to develop per capita budgets and build cost-effective health care delivery networks. Those strategies can be put into effect only if all eligible beneficiaries commit themselves either to use a military plan or to rely on civilian sources of care.

Premiums and Copayments

Imposing copayments for health care benefits--for both military and civilian care--at levels approaching those in civilian plans would offer beneficiaries incentives to use care efficiently. Premiums would also minimize the risk of ghosts reentering the military health care system, thereby improving both regional management of the system and capitated budgeting. For DoD to institute that change, however, the requirement that Tricare Prime must lower out-of-pocket costs for beneficiaries would have to be repealed.

by beneficiaries and by negotiating discounts with providers. In addition, DoD will try to improve coordination between military and civilian providers, not only to improve the use of military facilities but also to control the total volume of care used by beneficiaries.

Sensitivity of the Estimates

The estimated cost of the Tricare program is highly sensitive to many assumptions about the behavior of beneficiaries and providers and more generally about DoD's ability to reform its health care system. Higher administrative costs and increases in demand from a more generous benefit structure, and lower savings from utilization management, will precipitate an even greater increase in government costs.

To highlight the likely effects of the Tricare program on government costs, CBO developed both an optimistic and a pessimistic case from the assumptions used to produce the earlier estimate--the so-called base estimate of costs. Under those different assumptions, the effects of Tricare could range somewhere between additional costs of about 6 percent--more than $500 million--and savings of less than 1 percent--$100 million (see Table 6). Since so many of the savings depend on DoD's ability to improve the efficiency of its own system of care, removing the key impediments to efficiency in the direct care system is critical to the success of the Tricare program (see Box 3).

In contrast to CBO's estimates, DoD has projected that Tricare would not add to government costs and would actually generate savings for the department. DoD's analysis assumes that it will be able to meet its objective of improving the efficiency of the military health care system and to make major changes in many of the current relationships built into DoD's health care delivery system.

CHAPTER V

ALTERNATIVE APPROACHES TO MILITARY MEDICAL CARE

Neither the Tricare program nor the Medical Readiness Strategic Plan 2001 is likely to resolve the inherent tension between meeting the requirements of the wartime mission and providing peacetime health care. In the future, as a result of continued growth in the number of retirees and their families, coupled with reductions in the medical infrastructure resulting from tighter defense budgets, the Department of Defense will find it even harder to focus on the wartime mission.

To ease that tension, the Congress may wish to consider alternative approaches to providing peacetime care while meeting the requirements of wartime. This chapter outlines an approach that would restructure the military health care system around its wartime mission, based on reducing medical requirements for wartime from Cold War levels.

AN ALTERNATIVE APPROACH TO TRAINING FOR WARTIME

Under DoD's plans for its military medical system--that is, the Tricare program--most military medical providers will have a limited opportunity to prepare for the wartime mission. Peacetime patient loads in the future will probably bear little resemblance to battle casualties. Moreover, they would probably bear a weaker resemblance to other war-related diagnoses than they do today, since fewer retirees and their dependents may be able to receive care at military treatment facilities. More relevant experience might come from treating military personnel serving in peacetime operations--for example, recent deployments of personnel to Panama, Somalia, and Haiti. Nevertheless, because those operations have fortunately resulted in few casualties, they have offered limited training for military medical providers in the area of combat casualty care. Even so, such operations might provide medical personnel with more training in treating disease and nonbattle conditions than they would receive from normal peacetime caseloads.

Increasing the experience of military medical personnel in treating diseases and injuries that they need to be trained to deal with in wartime would involve treating different patient loads during peacetime than is currently the case. Relying more heavily on the civilian sector--and less on the workloads in the direct care system--might give military medical providers substantially greater exposure to diseases, nonbattle injuries, and wounded-in-action conditions than they receive today. This approach assumes that civilian providers may have greater exposure to both disease

and nonbattle injuries and wounded-in-action conditions than military providers based on the wider range of diagnoses that are seen in the civilian sector.

Greater Exposure to Wounded-in-Action Conditions

One approach to wartime training and exposure to WIA conditions would be to build on the experience at Brooke Army Medical Center and Wilford Hall. As part of the San Antonio civilian trauma system, those hospitals provide their personnel with ongoing trauma training and an opportunity to practice wartime surgical skills that would not necessarily be available from a population of peacetime military beneficiaries.

Shock Trauma Centers. The military medical departments could decide more generally to establish affiliations with civilian trauma centers throughout the country. Current residency programs in which military physicians work in civilian hospitals could provide the basis for more extensive links between the military and civilian systems.

To determine the match between injuries treated at a typical shock trauma center and those sustained in battle, the Congressional Budget Office analyzed cases treated at the R Adams Cowley Shock Trauma Center in Baltimore, Maryland, during fiscal year 1993. The Baltimore center is a Level 1 facility capable of providing emergency care around the clock; thus, it receives a large volume of trauma patients. It also enjoys a statewide reputation and receives patients from outside its immediate urban area.

In 98 percent of the cases treated at the Baltimore center, the primary diagnoses matched those found on the military's list of battle injury or casualty-related diagnoses. That finding suggests that of the roughly 20,000 injuries treated at the Baltimore center, more than 19,500 would provide a military medical provider with training in a war-related condition. To treat an equivalent number of cases typical of battle injuries within the peacetime military direct care system, physicians would have to treat nearly 400,000 patients. Not only the nature of the medical training but also the intensity of exposure to conditions typical of wartime is obviously much greater in the Baltimore center than in most military facilities.

The R Adams Cowley Center, like other shock trauma centers, uses many techniques learned from military experiences in wartime, and its conditions of practice replicate many of the aspects of wartime medical practice: an unpredictable patient load, a high incidence of life-threatening conditions in which timely treatment is literally vital, and--as noted--diagnoses similar to those experienced in wartime.

Those similarities have not gone unnoticed: the Baltimore center currently serves as a clinical training site for military personnel in residency training programs (see Box 4).

Military Training at Shock Trauma Centers. CBO's analysis suggests that, for many military medical personnel, Level 1 shock trauma facilities are likely to provide the

BOX 4.
CIVILIAN SHOCK TRAUMA CARE AND ITS MILITARY ROOTS:
THE R ADAMS COWLEY SHOCK TRAUMA CENTER

Baltimore is home to the R Adams Cowley Shock Trauma Center, a state-of-the-art facility which opened in February 1989. The Shock Trauma Center serves as the regional trauma center for the most populated counties of Maryland and is the clinical hub of the state's system of trauma and emergency medical care. During fiscal year 1994, more than 5,200 patients were admitted to the Shock Trauma Center. Over two-thirds of them were transported directly from the scene of injury to the center. Approximately half of all patients were treated for injuries sustained in vehicular crashes and about 30 percent were victims of interpersonal violence, the majority of whom were gunshot victims.

The roots of the Shock Trauma Center lie in the military. In 1961, the U.S. Army provided a grant to begin the first shock trauma unit, a two-bed clinical research unit at the University of Maryland Hospital. Dr. R Adams Cowley, the unit's founder and director, drew on military medical experience in post-World War II Europe to further research the causes of shock and trauma. As the unit expanded and became part of Maryland's statewide trauma and emergency care system, it joined forces with the Maryland State Police Med-Evac Program. The Med-Evac Program built on lessons learned in the Korea and Vietnam conflicts to transport effectively the critically injured and ill.

Over the last several decades, the Shock Trauma Center has also served as a clinical training site for numerous U.S. military personnel. Rotational programs give training in trauma-style medicine to military physicians, physician assistants, and paramedics. Since 1989, clinicians from the U.S. Army's Special Operations Command, based at Fort Bragg, North Carolina, have performed two-month clinical tutorials on the center's trauma teams. Clinicians from Bethesda Naval Hospital, Walter Reed Army Medical Center, and the Uniformed Services University of the Health Sciences also perform trauma team rotations at the center. The R Adams Cowley Shock Trauma Center, whose foundation lies with the military, continues to support both in concept and in practice the training of U.S. military personnel at trauma centers.

best wartime training in trauma care and casualty-related diagnoses.[1] The Army is currently considering one way to establish affiliations with such facilities. The Army's proposal calls for a voluntary program in which a range of medical personnel--rapid deployment physicians, general or specialized surgeons from all services (including the reserves), senior medics, and nurses--would train in trauma centers, together with trauma center staff, to maintain their clinical competence in trauma surgery. Assignment to a trauma center could be for as little as one month every few years, several weeks a year, or several shifts a month.

Some 60 of the largest cities in the United States have a total of about 140 facilities with a major Level 1 shock trauma center. Each year, those facilities could provide training in combat-like skills for more than 1,500 medical personnel--such as nurses or physicians--assuming that about 12 military medical personnel are rotated annually at each facility. Over a three-year period, more than 4,500 medical providers--and perhaps even all of the surgeons the services will need for wartime medical readiness--might have the opportunity for wartime training. Equally important, refresher training could be carried out on a rotating basis. The details of any such plan, such as the length of individual rotations, would obviously depend on both the needs of the services to train their personnel and the needs of the civilian shock trauma centers.

Greater Exposure to DNBI Conditions

Military medical personnel also need exposure to disease and nonbattle injury conditions. Military medical providers already treat far more DNBI than WIA conditions in military medical facilities. Nonetheless, DoD could consider ways to improve on that record. Today's training experience is derived mainly from treating active-duty members and their families, who receive the majority of the care provided in military medical facilities. Retirees and their families and survivors make up about 35 percent of the total number of admissions in military medical facilities. Those over 65 years of age account for about 15 percent of total admissions.

Increase Training in Military Facilities. DoD believes that the solution for giving military medical personnel exposure to a broader range of diagnoses is to provide care to a greater number of retirees over the age of 65. DoD argues that "this older

1. Differences between civilian and wartime trauma care, however, do exist. Therefore, training military medical personnel in civilian shock trauma units would probably have to be augmented by other steps, such as courses that are specifically designed to educate personnel on how techniques in wartime differ from those in peacetime. See Arthur M. Smith and Steven J. Hazen, "What Makes War Surgery Different?" *Military Medicine*, vol. 56 (January 1991).

group of patients presents the wealth of clinical workload needed by our military medical personnel to maintain their skills for readiness missions."[2] The implication of this statement is that the complexity of cases--and range of diagnoses--generated by older people would relate more to wartime than providing care to a generally younger, healthier group of active-duty personnel and their dependents.

An approach of this kind, however, has disadvantages and limitations. Caring for a greater number of retirees over the age of 65 would trigger substantial increases in medical spending by the military, as the retirees received more of their care in military medical facilities and dependents of active-duty personnel sought care in the civilian sector under one of the three options under Tricare. Those increases in spending would add to the cost of Tricare.

Aside from the issue of cost, one problem with this approach is that by 1999 close to 50 percent of beneficiaries over the age of 65 will live outside military hospital service areas. As a result, DoD may find it difficult to increase its admission rates among retirees over the age of 65. Much depends on how willing retirees would be to travel longer distances to military medical facilities, even if the economic incentives to do so are strong.

Finally, any such effort to admit more beneficiaries over age 65 would require a major change in the system of priorities for care at military medical facilities. Any explicit policy of that nature would necessitate a change in the statute governing access by beneficiaries to care at military medical facilities and predictably would have adverse morale and financial consequences for active-duty families.

Military Training at Civilian Hospitals. If experience in treating patients over the age of 65 is indeed important in providing training for military medical providers, civilian hospitals could easily offer that experience. According to the 1994 Hospital Panel Survey of the American Hospital Association, people over 65 represented almost 40 percent of the admissions provided by community hospitals, compared with about 15 percent in military hospitals.[3]

Efforts to diversify the range of diagnoses that military medical providers are exposed to during peacetime might be better accomplished if DoD was to consider exactly what type of exposure its personnel needed for wartime and then how to offer that experience to them. Although it may be true that older beneficiaries give military medical providers the opportunity to treat certain illnesses and injuries that

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2. Statement of Stephen C. Joseph, Assistant Secretary of Defense for Health Affairs, before the Subcommittee on Military Personnel, House Committee on National Security, March 28, 1995.

3. American Hospital Association, *Hospital Panel Survey* (Washington, D.C.: AHA, December 1994).

are not common among younger beneficiaries, neither population group may offer DoD the exposure that it needs to many infectious diseases and illnesses that could found by treating a broader cross-section of the civilian population.

Effects on Peacetime Medical Care

Assigning a significant number of medical personnel to shock trauma centers and civilian hospitals would have undeniable consequences for the military's ability to provide medical care in peacetime. Military medical facilities would be more limited in the amount of care that they could provide, thus forcing beneficiaries to rely more heavily on the Civilian Health and Medical Program of the Uniformed Services or other sources of care. To avoid having to push beneficiaries into CHAMPUS, the Army has proposed using reservists to cover the loss of active-duty personnel at the military facilities, while active-duty personnel are training in civilian shock trauma units.[4]

Carrying out such proposals would mean disrupting current doctor and patient relationships.[5] Beyond that effect on the delivery of health care, such an approach would be costly. Additional rotations of personnel through shock trauma centers--or to civilian hospitals--would entail travel, per diem, and housing expenses, some or all of which might be defrayed by the hospitals benefiting from the services of military medical personnel. If the productivity lost in military facilities was not restored, CHAMPUS costs would rise as beneficiaries sought care in the civilian sector. Those increases in cost would occur at a time of tightening defense budgets.

REDEFINING THE RESPONSIBILITIES OF DoD

More generally, the difficulties posed for DoD by any training program that takes personnel out of its medical facilities--by assigning them to civilian hospitals or shock trauma units--raises the basic challenge of how to balance the wartime mission with peacetime care. In the past, the department has not been able to do that well. Even its own Medical Readiness Strategic Plan underscores DoD's tendency to provide peacetime care at the expense of wartime preparedness.

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4. A trauma training proposal that was developed by staff at Eisenhower Army Medical Center at Fort Gordon, Georgia, cites the possibility of using reservists to backfill military treatment facilities when active-duty physicians train in civilian shock trauma units.

5. Any disruption that might occur in the doctor and patient relationship may not bother active-duty personnel and their dependents very much, however, since they tend to relocate quite frequently and therefore would not have longstanding relationships with their physicians. In addition, of course, military medical personnel are subject to similar reassignments.

The option of assigning military medical personnel to civilian settings for training is based on the assumption that wartime medical readiness should be the primary objective of DoD's medical planning. To avoid compromising the wartime mission, DoD needs the flexibility and resources to train medical personnel for wartime needs, even at the possible expense of forgoing the direct delivery of some care to its beneficiaries in peacetime. Training in shock trauma programs or field medical training programs could improve wartime medical readiness. Civilian hospitals could also add to the exposure of military medical providers to DNBI conditions. Achieving those goals, however, might require redefining DoD's peacetime mission and providing health care for many military beneficiaries in other ways.

Reducing the Size of the Direct Care System to Wartime Requirements

Reducing medical requirements from Cold War levels creates an opportunity for DoD to reconsider how it handles its wartime medical mission and provides health care during peacetime. In accord with the findings of DoD's section 733 study and supporting analysis by RAND, the department could close the majority of its hospitals and medical centers and still provide through its own facilities roughly double the share of total wartime needs that it planned to meet during the Cold War.[6] As DoD has traditionally planned, the Department of Veterans Affairs (VA) and civilian hospitals under agreement with the National Disaster Medical System (NDMS) could provide additional wartime beds.

Several factors would influence any specific plan that DoD or the Congress might develop to downsize the military medical system. For example, selecting which facilities remained open might depend on their size, location, proximity to major airlift bases, and perhaps even their service affiliation. Another consideration might be to distribute the military hospitals across the United States in such a way that recovering casualties could be as close to family members as possible. For DoD's recent 733 study, RAND analyzed the effect of such factors on the possible location of military facilities in a downsized health care system, but DoD has no plans to implement RAND's analysis.[7]

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6. The findings of the Section 733 Study of the Military Medical Care System are still under review by DoD and the services. Therefore, requirements for wartime could change.

7. In support of the 733 study, RAND provided DoD with an analysis of the number and location of facilities that would be needed to meet the wartime requirements. See Susan D. Hosek and others, *The Demand for Military Health Care: Supporting Research for a Comprehensive Study of the Military Health-Care System* (Santa Monica, Calif.: RAND, 1995), p. 38.

Effects on Capacity. If the only requirement of the military medical system was its wartime mission, then according to RAND's analysis DoD could downsize the system to only 11 of today's hospitals with about 5,500 wartime beds in the United States. In doing so, DoD would be able to meet about 60 percent of the total wartime requirement for 9,000 beds through its own system, a significantly higher percentage than it ever met during the Cold War.

Moreover, if it carried out such an aggressive downsizing plan, DoD could then decide whether to convert to clinics the military medical centers and hospitals slated for closure. One factor in the decision would be the amount of care needed by active-duty personnel in each geographic area. If the active-duty presence was large enough, the department might find it less costly to keep a facility open than to obtain care through arrangements with civilian providers.

Effects on Available Care for Uniformed Personnel. Given the current geographical distribution of active-duty personnel, care for almost one-third of them could be provided at the 11 military hospitals remaining open to meet wartime medical requirements. To support the estimated demand for inpatient care for the active-duty population living near those 11 facilities during peacetime, DoD would need to operate only about 1,000 beds out of the 5,500 total beds retained for wartime (see Box 5). However, although DoD would only need to operate about 1,000 beds during peacetime to meet the demand for medical care by active-duty personnel, it would still retain an additional 4,500 beds during peacetime to meet the requirements for wartime.

Given that additional capacity, DoD might decide to operate more than 1,000 beds by delivering care to others, such as other military beneficiaries or civilians. Although that alternative has not been explored in this paper, clearly one way for DoD to secure a larger patient base might be to compete with civilian hospitals and providers for both military beneficiaries and civilians.

The remaining two-thirds of the active-duty population would receive its inpatient care in civilian hospitals. Based on today's per capita costs, the cost of care for active-duty personnel would probably be less than $3 billion a year. Other military beneficiaries--active-duty dependents and retirees and their families--would receive all of their care from civilian providers, perhaps under an approach such as the Federal Employees Health Benefits (FEHB) program, discussed later in this chapter.

Effects on DoD's Budget. Downsizing the direct care system to such an extent would offer substantial savings. Under one definition of wartime readiness, the Congressional Budget Office estimates that about $9 billion could be saved each year

to pay for medical care for DoD beneficiaries from alternative sources such as the FEHB program (see Appendix B on the method CBO used to estimate savings from downsizing the military health care system in the United States). However, the costs of closing military medical facilities, which CBO has not calculated, would be substantial, and based on experience with hospital closings in the base realignment and closure process, it would probably take from 5 to 10 years for DoD's annual savings to reach $9 billion. That estimate of savings does not take into account the cost of providing an alternative source of health care coverage for non-active-duty military beneficiaries.

Improving Affiliations with the Civilian Sector

Retaining only 11 hospitals would leave DoD short of its wartime requirements by some 3,500 beds. Traditionally, DoD has relied on its own system, the VA, and the civilian sector to meet its wartime requirements. Casualties returned to the United States from abroad would be sent to a military medical facility, where as many as

BOX 5.
MEETING THE DEMAND FOR CARE BY ACTIVE-DUTY PERSONNEL WITH A SYSTEM SIZED TO WARTIME REQUIREMENTS

Under an illustrative plan to downsize the military health care system in the United States, the military would remain responsible for the care of its active-duty personnel. Based on the geographical distribution of active-duty personnel, however, the demand for care during peacetime could not be met entirely by the military.

The Congressional Budget Office estimates that by 1999 almost one-third of active-duty personnel would live in areas near one of the 11 facilities remaining open in the direct care system sized for wartime. To meet the demand for inpatient care for that population, the Department of Defense would need to operate only about 1,000 beds of the total 5,500 wartime bed capacity left in the system. That estimate is based on the assumption that active-duty personnel would experience the same rates of health care use that they do today. (Of course, DoD could choose to operate more than 1,000 beds by providing medical services to private paying patients.) Civilian hospitals would probably meet the majority of demand for inpatient care by active-duty personnel living in areas too far away from the military facilities remaining open.

Outpatient care from a military facility would probably be more accessible for all active-duty personnel if DoD pursued such options as converting to clinics those medical facilities slated for closure and continuing to operate those clinics that are free-standing today. DoD would probably have to rely on the civilian sector to meet only very little of the demand for outpatient care by active-duty personnel, although it could decide to do so based on other considerations beyond capacity.

possible would be returned to duty within a certain period of time. The VA would provide care for those requiring it for longer periods of time. The VA's most recent estimate is that it could offer DoD roughly 13,000 beds for that purpose.

During the Cold War, civilian hospitals under agreement with the NDMS made up the difference in requirements. The most recent figures from DoD suggest that the civilian hospitals have registered over 100,000 beds with the NDMS for contingency use. Although DoD would use those beds if it had to, it is somewhat cautious about the availability of those civilian beds. Unlike the VA, which is required by law to support DoD, civilian hospitals merely volunteer their beds for contingency use. Moreover, the agreements that the civilian hospitals have signed are with the NDMS, not with DoD, and DoD has no assurance that the types of beds the civilian hospitals actually have available would match the military's needs.

Yet placing primary emphasis on performing the wartime mission would require strengthening affiliations with civilian hospitals--to provide better wartime training, employ military medical personnel who are not training in shock trauma units, and meet some of the requirements for caring for active-duty personnel. Such working relationships could allay concerns about providing care for uniformed personnel outside the military's direct care system, since active-duty personnel would be responsible for their care. In addition, military medical personnel assigned to civilian hospitals could be exposed to a wider range of patient conditions that would improve their training in DNBI diagnoses (assuming that they could treat civilians).

Several key issues might affect any decision to establish stronger affiliations with civilian hospitals for the purpose of providing military medical personnel with greater exposure to DNBI conditions. One of the major concerns that the services would have is whether or not they could establish a sufficient number of affiliations with civilian hospitals to keep their medical personnel employed during peacetime. In some areas of the country, many civilian hospitals may simply not be interested in establishing an affiliation agreement with the military. In others, local civilian providers might present the strongest opposition to staffing civilian hospitals with military medical personnel.

Another major issue that the military faces is whether or not civilian hospitals would allow military medics and other enlisted medical personnel the same types of training that they receive in military facilities. Liability issues, a major concern to civilian hospitals, would influence many of these decisions. Nonetheless, existing affiliations between the military and the civilian sector hold out the promise that DoD might be able to strengthen its relationship with civilian hospitals.

The Partnership Between the Navy and Newport Hospital

One such example is the partnership that the Navy and Newport Hospital in Newport, Rhode Island, formed in 1991 to provide health care to eligible military beneficiaries. Under that approach, military physicians practicing at Newport Hospital provide inpatient care and selected outpatient procedures, including ambulatory surgery, to military beneficiaries, including active-duty personnel. Inpatient care that military physicians cannot give is provided instead by civilian physicians who are reimbursed under CHAMPUS, naval hospital operating funds, or some other payer, such as Medicare. Most of the demand by military beneficiaries for primary outpatient care and most specialty care is met by the naval ambulatory health center, which is currently located in the remains of the old Newport Naval Hospital buildings. (A new comprehensive health care clinic is under construction and will house most services by 1997.) Military physicians spend the majority of their time at the ambulatory health center and travel the short distance to Newport Hospital when serving inpatients.

The partnership arrangement between the Navy and Newport Hospital is a strong one in which the parties have worked together to resolve a number of important issues. For example, would Newport Hospital or the Navy have liability for any malpractice suit by military physicians providing care to military beneficiaries at Newport Hospital? Would military physicians have to be licensed to practice in the state of Rhode Island?

The Navy and Newport Hospital agreed that when military providers are acting in the performance of their duties while treating military beneficiaries, the liability associated with providing that care rests with the U.S. government, even when that care is being provided in a private hospital. Similarly, the parties--and the State of Rhode Island--agreed that Rhode Island licensure would not be required when military physicians treat only military beneficiaries. Other issues, such as who has authority over military physicians when they provide care at Newport Hospital, were also resolved by agreement between the Navy and the hospital. Naval physicians fall under the authority of their commanding officer but also agree to abide by Newport Hospital by-laws.

Several factors influenced the formation of that partnership. The old Newport Naval Hospital, which reached a peak load of nearly 1,500 patients during World War II, was much too large for the eligible patient base of military beneficiaries. Moreover, its 1913 structure also meant that it could not be converted into a smaller and more efficient hospital, and the existing structure had problems meeting many modern health and safety standards. The daily patient count, which fluctuated greatly

during the mid-1980s but averaged only 50, also made it difficult for the Navy to staff its units efficiently.

As the number of patients declined, overhead costs skyrocketed. To spread those costs, the Navy attempted through its Family Practice Demonstration Program in 1989 to recapture the care that civilian hospitals were providing. The Navy also considered building a new $50 million facility and acquiring major medical equipment in order to meet inpatient needs. Meanwhile, Newport Hospital--the only civilian hospital in Newport--had an average daily patient load of 136 and was experiencing excess capacity and thus had the ability to provide inpatient care for the military's patient base. The Navy found it more cost-effective to form a partnership with Newport Hospital than to construct a new inpatient facility.

The Navy clearly enjoys a number of benefits from the partnership. Not only are military physicians able to maintain their clinical skills by working at Newport Hospital, but the arrangement has also lowered the government's cost of caring for military beneficiaries. For services that Newport Hospital provides to supplement those of the Navy's own physicians, the hospital provides the government up to a 20 percent discount off the CHAMPUS-allowable rate when reimbursement is under CHAMPUS or naval hospital operating funds. The arrangement also reduces DoD's cost of support staff, whose services are now purchased from Newport Hospital rather than from permanent DoD employees. The resulting flexibility in civilian staffing patterns lowers costs to the military. Better utilization management employing civilian admissions practices has further lowered costs. Although the partnership has resulted in reduced costs, it apparently has not reduced quality. Both medical staff and military beneficiaries are extremely satisfied with the program.

The Navy's partnership with Newport Hospital has also yielded dividends in wartime readiness. In 1991, when military physicians were deployed to the Persian Gulf War from Newport, civilian physicians provided the Navy with backup support by continuing to provide care to military beneficiaries at Newport Hospital. The hospital's ability to provide that support, of course, stemmed in part from its relatively small military patient load compared with the average number of civilian patients. Other factors, such as the types of care provided by military and civilian physicians, might also affect providing backup support in particular instances.

In discussing why the partnership has worked so well, both the Navy and Newport Hospital cite its informal nature. The Navy, in particular, stresses the importance of making decisions based on the local concerns and conditions of the health care market. To make other such partnerships between the military and private providers work in the future, that flexibility clearly would have to be safeguarded.

Allowing military medical personnel to staff civilian hospitals during peacetime raises a number of other important issues for the military that the case study of the Navy's partnership with Newport does not address. One key question that DoD would need to answer is, Who would military medical personnel report to while working in a civilian setting? Another issue is whether military medical personnel would be able to treat civilian patients to broaden their clinical training experience. And if the civilian hospital increased its reliance on military physicians to treat a significant share of its patient base, how would the hospital handle the loss of medical personnel during wartime? Newport Hospital could handle that loss, but that was because the hospital's reliance on the military was minimal. Another major issue that the military would have to address is whether it would be able to maintain the same unit cohesion necessary for wartime by employing military medical personnel through civilian hospitals.

But if the partnership between Newport Hospital and the Navy is able to teach policymakers one lesson, it might be that the conditions of the local health care market will determine the success or failure of the relationship. Therefore, given the importance of the local market, any attempt to establish the same type of partnership in every health care market in the country--or to address all issues that are central to this topic in a uniform manner--could lead to the failure of the concept.

OTHER ISSUES IN WARTIME READINESS

Any plan to reduce the size of the military medical establishment would have many other effects on the military's ability to perform its wartime missions. The department feels that two areas are of particular importance: the military's graduate medical education programs and the role of the reserves.

Graduate Medical Education Programs

Downsizing the military health care system in the United States would have a significant impact on the military's GME programs. Graduate medical education is the specialized education that physicians receive after their four years of basic medical education. All physicians must complete a graduate medical education program to gain certification in a medical or surgical specialty. Specialty training is an important step for physicians in terms of both their commitment of time and their

choice of a career path. Most programs take from two to six years, sometimes including both a one-year internship and residency training.[8]

The military operates residency (and fellowship) programs in a wide range of medical specialties. They have curricula equivalent to those of civilian GME programs and are accredited by the same medical organizations. Most military GME programs are located at major medical centers as well as at military hospitals.

During the time they spend in GME programs, physicians are practicing medicine and providing medical care. The existence of military GME programs thus provides DoD with the services of physicians during their period of training as specialists. About 25 percent of military physicians are in GME training at any given time. As a result, they provide a substantial portion (but less than one-fourth) of DoD's physician services.[9]

That contribution to treating patients in peacetime is one reason why the Surgeons General of the military services place a high value on military GME programs. Another reason is that in wartime GME students also serve as an emergency source of military-experienced physicians. In principle, at least, the existence of military GME programs helps the military to ensure the availability of the types and numbers of physicians needed for the wartime mission. The wide range of military GME programs, however, may dilute that emphasis on training in the specialties needed for wartime.

The Surgeons General also contend that by offering the possibility of teaching during physicians' military careers, military GME programs aid in recruiting and retention. The appeal of teaching may help in retaining physicians who otherwise might be induced to leave military service for civilian practice. In addition, according to the Surgeons General, physicians trained in military GME programs make up a larger share of military medical leaders.

Perhaps the strongest argument in favor of military GME programs is that they offer better training in military medicine than do civilian residency programs. Military programs typically require courses specific to military medicine in addition to the standard curriculum that they share with civilian GME programs. Some benefit may also accrue from continuing to acculturate military physicians by training them in institutions that emphasize service to military populations, membership in the military community, and responsibility to military discipline.

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8. The internship may or not be considered to be the first year of graduate medical education. For example, according to DoD, the internship counts as the first year of residency for a pediatrician but not for a dermatologist.

9. Physicians in medical residency training are considered to be less productive than full-time-equivalent physicians.

Unless those benefits could be obtained in other ways--for example, through supplementary course work in military medicine--they might be lost under a major downsizing of the military health care system. Reducing the total number of active-duty physicians to wartime requirements would also reduce the need for military GME programs. Moreover, a system that provided care only for active-duty personnel would probably not have an adequate patient base for specialty training. DoD might be able to retain accreditation for some of its programs by expanding its patient base beyond active-duty personnel. For example, military and even civilian beneficiaries--depending on their insurance coverage--could be offered access to care at military medical facilities.

Nonetheless, downsizing would probably force DoD to train more of its physicians through civilian GME programs. Despite the existence of military GME programs, it is not unusual for military physicians to train in civilian residency programs. For example, almost half of the Air Forces' physicians are graduates of civilian training.

One argument that has been offered against relying on civilian programs to train military specialists is that those who train in civilian residency programs tend to leave service sooner than those who train in military GME programs. That difference, however, appears to be at least partly the result of the way the military services manage the careers of their medical personnel. Each year the services defer some physicians, such as those with an obligation for military service incurred through DoD's Health Professionals Scholarship Program. Those new graduates of medical school typically enter civilian residency programs without military sponsorship and thus incur no additional obligation during their specialty training. Upon completing it, they may perform their military service as specialists and may then leave to enter civilian practice. By contrast, military residency training increases a physician's service obligation by about one year for each year of training, so graduates of those programs stay longer on average than those trained in civilian programs.

That policy appears to serve the needs of the military services, which often face both budgetary constraints and end-strength limits on the number of physicians they can employ. The observed shorter average length of service of graduates of civilian residencies thus may serve the interests of the services' medical programs as well as those of the physicians. In any event, ending deferrals, or at least requiring the same additional service obligation for civilian as for military GME training, would probably eliminate most of the observed difference in physician retention. Such a policy change would undeniably make military service less attractive to medical students and thus might limit the effectiveness of the scholarship program. But the

additional years of service per physician would tend to offset those losses, and in any event the overall downsizing would reduce the services' needs for medical personnel.

Even if physician retention does not suffer, eliminating most military GME programs would lead to changes in career progression for most military physicians. Fewer opportunities would be available to teach or to develop leadership skills by managing a military clinic, hospital, or medical center. Physicians probably would spend more of their careers in deployment assignments, and fewer would be assigned to hospitals in the Continental United States. Perhaps the most fundamental change would be in the purpose and orientation of the military health care system--from one structured chiefly to provide care in peacetime to a civilian population to one focused on training for wartime. Those changes would need to be dealt with in a way that maintains the skills of physicians, but they still could affect the attractiveness of a military medical career.

Downsizing could also possibly offer some benefits and opportunities for medical personnel that are not available in today's direct care system. For example, military physicians might have the chance to develop stronger ties with civilian institutions than they have today, given the chance to work in a civilian hospital. Closer integration with civilian practice patterns might help military physicians learn new techniques and work with equipment not readily available in military facilities. At the same time, closer affiliations with civilian hospitals could hurt retention. Finally, many physicians, particularly surgeons, could view rotating assignments to shock trauma units as more personally and professionally rewarding.

Continued Reliance on the Reserves

Any reduction in the size of the active-duty medical force to wartime requirements would entail a continued reliance on reserve medical personnel. The section 733 study, for example, suggested maintaining the ratio of active to reserve personnel that existed during the Cold War (see Table 7). Reliance on reservists, however, may create problems of deployability: for example, during the Persian Gulf War, DoD lacked a system for verifying the medical fitness of reserve medical personnel.

In its Medical Readiness Strategic Plan 2001, DoD outlines several objectives to ensure the readiness of the medical force in the future. Improving the readiness of reserve personnel as well as active-duty personnel is a focus of the plan. Among the goals that DoD has set forth are recruiting and retaining a sufficient number of qualified personnel, ensuring that all services use a consistent set of criteria for medical deployability, and ensuring that all medical personnel attend the required entry-level military training.

Despite the improvements that DoD hopes to make in the readiness of its reserve personnel, some analysts believe that recruiting and retaining the reserve medical personnel called for by DoD's plans may be difficult. For example, some employers may not be willing to promote physicians who are in the reserves. Self-employed physicians who are in the reserves may fear the consequences for their practice of being recalled to active duty. Those issues are clearly relevant to any debate about the appropriate mix of active and reserve personnel.

ALTERNATIVES TO TRICARE

Placing primary emphasis on the wartime mission would lead to a major restructuring of the military health care system. The direct care system would be downsized to levels consistent with wartime requirements, and DoD would not be able to move forward with the Tricare program as planned. Instead, eligible military beneficiaries--perhaps with the exception of active-duty personnel--would have to receive their health care in the civilian sector.

Military beneficiaries could receive access to health care from nonmilitary providers in many ways. One particular approach, supported by the National

TABLE 7. COMPARISON OF WARTIME MEDICAL REQUIREMENTS FOR ACTIVE AND RESERVE PHYSICIANS

	1987 Requirements		1999[a] Base Case[b]		1999[a] Augmented Case[c]	
	Number	Percentage of Total	Number	Percentage of Total	Number	Percentage of Total
Active	13,396	42.5	4,000	44.4	6,300	43.4
Reserve	18,100	57.5	5,000	55.6	8,200	56.6
Total	31,496	100.0	9,000	100.0	14,500	100.0

SOURCE: Congressional Budget Office.

a. The 1999 requirements for physicians are based on the findings of the Section 733 Study of the Military Medical Care System.

b. The base case includes the minimum number of physicians needed to treat casualties from a theater of war.

c. The augmented case exceeds the base case by including physicans needed during peacetime to continue with several other activities, including training, providing relief for physicians in locations outside the Continental United States, and staffing hospitals in those locations.

Military Family Association, would give beneficiaries access to care through the Federal Employees Health Benefits program as well as through the military health care system (see Box 6 for a description of the FEHB program). In requesting a CBO study of military medical care, the Subcommittee on Personnel of the House National Security Committee asked CBO to consider FEHB alternatives to Tricare.

CBO developed a basic option modeled on the premium-sharing arrangements between the government and nonpostal employees (see Table 8 for a summary of the eligibility of beneficiaries for care). Since under any FEHB plan beneficiaries would face higher premium and out-of-pocket costs than under today's military coverage or Tricare, CBO also developed two alternatives to the basic option. Both of those additional options would enrich the benefits offered to military beneficiaries above the basic option by increasing the government contribution under the FEHB program. As a result, both of those options would lead to increases in enrollment levels and

BOX 6.
THE FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM

The Federal Employees Health Benefits (FEHB) program is the source of health insurance for more than 9 million people. That number includes employees and retirees of the federal government and their dependents. Enrollment in the FEHB program is voluntary. In fact, not everyone who is eligible for enrollment chooses it: about 15 percent to 20 percent of the total eligible population of federal workers and retirees decides not to enroll in FEHB for a variety of reasons. For example, a married employee may opt for coverage through the employer of his or her spouse.

Participants in FEHB have a wide range of choices of types of plans and providers. Premiums and levels of benefits vary among plans. Two basic types of health insurance plans are offered: fee-for-service plans (including preferred provider options) and prepaid plans such as health maintenance organizations. Enrollees must also elect either self-only or self and family coverage.

The federal government and enrollees share the cost of each plan's premium. In 1995, the average premium contribution that the government will pay will be about 72 percent; employees will pay the remaining 28 percent. (Annuitants pay a slightly higher percentage of the average premium.) Postal Service employees, however, pay a smaller share of the premium--roughly 14 percent based on their share of the premium in 1995. The share of the premium paid by the government and an individual employee or annuitant varies by plan, based on a formula outlined in statute.

For nonpostal employees, the government's contribution to any plan's premium is based on a fixed dollar amount equal to 60 percent of the average of the high-option premiums for what are referred to as the "Big Six" plans but no more than 75 percent of any plan's premium. The Office of Personnel Management calculates that average based on six different plans.

TABLE 8. HEALTH CARE BENEFITS UNDER A SYSTEM REDUCED TO WARTIME REQUIREMENTS

Beneficiary Category	Direct Care System		Federal Employees Health Benefits Program
	Inpatient	Outpatient	Inpatient and Outpatient
Active-Duty Service Members (ADs)	Some care in military treatment facilities (MTFs). Most care through civilian providers.	Most care in MTFs. Some care through civilian providers.	Not eligible to enroll.
Active-Duty Dependents (ADDs)	Not eligible.	Not eligible.	Option to enroll.
Retirees, Their Families, and Survivors Under Age 65	Not eligible.	Not eligible.	Option to enroll.
Retirees, Their Families, and Survivors Age 65 and Over	Not eligible.	Not eligible.	Option to enroll. Receive both Parts A and B coverage under Medicare.[a]

SOURCE: Congressional Budget Office.

NOTE: This type of arrangement for health care benefits assumes the Civilian Health and Medical Program of the Uniformed Services would be eliminated.

a. Medicare Part A is Hospital Insurance. Medicare Part B is Supplementary Medical Insurance.

government costs above those expected under the basic option (see Appendix C for a discussion of the method used to calculate enrollment rates under each of the three FEHB options).[10]

Option 1: The Government Pays About 72 Percent of the Average FEHB Premium

Under this basic option, DoD would offer dependents of active-duty personnel and retirees and their family members the opportunity to enroll in the FEHB program on a voluntary basis.[11] As an employer, DoD would pay the government's share of the

10. All analyses presented in this chapter are based on the current FEHB program as administered by the Office of Personnel Management.

11. In keeping with the spirit of the FEHB program, military beneficiaries are assumed to have an annual opportunity to elect or change plan enrollment. However, military beneficiaries would have to elect plan enrollment before 62 years of age--and remain enrolled after that in a plan offered under the FEHB program--to maintain their eligibility for a plan offered under FEHB.

premiums for the plans that beneficiaries actually select, or an average of about 72 percent of the plans' costs; beneficiaries would pay the remaining 28 percent.[12] Since the contribution paid by the government would vary by plan, some beneficiaries would pay a higher or lower share of the premium based on their selection of plan.

In addition, the department would ensure that all of its military beneficiaries over the age of 65 had full coverage under Medicare, including both coverage under Part A (Hospital Insurance) and voluntary coverage under Part B (Supplementary Medical Insurance). To ensure that all eligible beneficiaries had full coverage under Medicare, DoD would pay the enrollee's premium under Medicare Part B, including fees for those beneficiaries who waived coverage when they first became eligible. In turn, those Medicare eligibles enrolling in an FEHB plan would receive their primary coverage through Medicare and secondary coverage through FEHB. That secondary coverage could prove to be quite generous for many people, since some FEHB plans provide a wraparound policy to cover what Medicare does not.

Beneficiaries other than active-duty personnel would no longer have the option to receive care from the military system, regardless of their enrollment in the FEHB program. The direct care system would be redirected toward the wartime medical mission. CHAMPUS would be eliminated. Consequently, the availability of peacetime care in military facilities would be sharply curtailed. DoD would retain the responsibility to provide care for active-duty personnel only, which it could meet through some combination of its military hospitals, clinics, and care purchased from the civilian sector.

Effects on Coverage and Access to Care. One major effect of this approach is that it would place all categories of non-active-duty beneficiaries on an equal footing. Today's military health care system does not, nor will Tricare. Instead, today's system of access to care at military medical facilities puts active-duty personnel before active-duty dependents; retirees and their families have lowest priority. Tricare will modify that system of priorities to consider whether beneficiaries are enrolled in Tricare Prime. The FEHB approach would eliminate those rankings, since all beneficiaries would have equal access through their chosen plans.

Because some FEHB plans would provide full wraparound coverage for services and cost-sharing requirements not covered by Medicare, military beneficiaries who are eligible for Medicare would also benefit substantially from this option. For example, most FEHB plans would provide 100 percent coverage for prescription drugs for such beneficiaries, all of whom would have their employee premiums for

12. Annuitants would actually pay about 29 percent of the average premium for a plan offered under the FEHB program.

enrollment under Medicare Part B paid by DoD. However, beneficiaries who are eligible for Medicare would still be required to pay their share of the premium for the plan they chose under the Federal Employees Health Benefits program.

Even under the FEHB approach, access to care could still vary by region, since not all FEHB options are available in all parts of the country. But military beneficiaries would have many more choices than they have today through the military health care system. Active-duty dependents could have at least as many choices as federal civilian employees, ranging from fee-for-service plans (with or without a preferred provider option) such as Blue Cross/Blue Shield to prepaid HMOs. The lack of available information on where retirees live makes it difficult to determine what plans might be available to them. But the availability of plans other than fee-for-service ones may not be particularly important to most federal retirees. In fact, over 85 percent of all federal annuitants enroll in fee-for-service plans that enable them to choose their physicians. Over 55 percent of annuitants choose Blue Cross/Blue Shield alone.

A military beneficiary's actual choice to enroll in any FEHB plan--and the plan actually chosen--depends on many more factors than just the number of choices. How the department carries out this option, how much it would contribute to each plan's premium, and the alternative options that beneficiaries may have for private health insurance will all affect their behavior.

Effect on Government Costs. Under Option 1, the Congressional Budget Office estimates that the total cost to the government in fiscal year 1996 would be $7.3 billion (see Table 9). Based on that estimate, the cost to the government would be substantially less than the savings that could be realized by downsizing and restructuring the military's direct care system.[13] Net annual savings after full implementation could be on the order of $1.7 billion (not including the costs of closing military medical facilities). Savings would probably be somewhat greater in comparison with Tricare once it is fully established.

Those estimates of costs assume that the present approach to calculating FEHB premiums would be retained. DoD would pay at least the government's share of the premiums of the plans actually selected by beneficiaries or an average of about 72 percent of the plans' cost. (Under current statute, the actual contribution that the department would make toward any plan's premium could not exceed 75 percent of

13. CBO estimates that about $9 billion could be saved each year from downsizing the military health care system, as illustratively examined in this paper. However, that estimate does not take into account the costs of closing military treatment facilities, or the cost of providing an alternative source of health care for non-active-duty beneficiaries.

any plan's premium.) Enrollees would pay the remaining 28 percent of the average premium.

In addition, the estimated cost of providing coverage for active-duty dependents and retirees and their families under FEHB includes an evaluation of how adding those beneficiaries who enroll to the covered population would affect the costs of

TABLE 9. CBO'S ESTIMATES OF COSTS TO THE GOVERNMENT FOR FISCAL YEAR 1996 UNDER THREE OPTIONS OFFERING MILITARY BENEFICIARIES ENROLLMENT IN THE FEHB PROGRAM (In millions of dollars)

Beneficiary Category	Option 1[a]	Option 2[b]	Option 3[c]
Costs to the Department of Defense[d]			
Dependents of Active-Duty Personnel	1,933	3,245	3,825
Retirees and Dependents Under 65	1,673	3,150	4,013
Retirees and Dependents 65 or Older	2,325	2,628	2,869
Subtotal	5,930	9,023	10,707
Costs to Medicare[e]			
Retirees and Dependents 65 or Older	1,363	1,363	1,363
Total Costs to the Government			
Dependents of Active-Duty Personnel	1,933	3,245	3,825
Retirees and Dependents Under 65	1,673	3,150	4,013
Retirees and Dependents 65 or Older	3,687	3,990	4,231
Total	7,293	10,385	12,069

SOURCE: Congressional Budget Office.

NOTE: FEHB = Federal Employees Health Benefits.

a. Assumes that the government pays about 72 percent the average premium under the FEHB program.

b. Assumes that the government pays 85 percent of the average premium under the FEHB program.

c. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

d. Includes increases in the costs to the Department of Defense from making premium payments on behalf of military beneficiaries enrolling in the FEHB program and from paying enrollees' premiums under Medicare Part B (including fines for those beneficiaries who waived coverage when they first become eligible).

e. Includes increases in the costs of Part A and Part B coverage under the Medicare program.

both DoD and Medicare. As well as the cost to DoD of providing military beneficiaries with coverage under FEHB, the estimate assumes that Medicare costs would increase under both Parts A and B. In addition, the estimate assumes that DoD would pay an enrollee's premium under Medicare Part B, including fees for those beneficiaries who waived coverage when they first became eligible.

Among the most important factors affecting CBO's cost estimate of the base option is the number of people who would enroll in the FEHB program. Also important is the effect on average health insurance premiums after military beneficiaries enroll in this program (see Box 7).

Effect on Enrollment. CBO assumes that, under the basic option, fewer dependents of active-duty personnel and retirees and their families under the age of 65 would enroll in the FEHB program than rely on the military health care system today. Conversely, CBO assumed that a significantly greater number of beneficiaries who are 65 years of age and eligible for Medicare would enroll in a plan offered under the FEHB program (see Table 10). According to DoD, about 90 percent of the dependents of active-duty personnel and 57 percent of retiree beneficiaries and their dependents under the age of 65 rely on the military health care system for their care. Roughly 30 percent of retirees over the age of 65, however, rely on the military for their care today.

Effect on Out-of-Pocket and Premium Expenses for Beneficiaries. Compared with their out-of-pocket expenses for care in the military health system today, military beneficiaries would have to pay substantially more on average to enroll in a plan offered under the FEHB program. For most beneficiaries, the largest effect would stem from additional premium costs. In addition, under most plans, beneficiaries would face copayments different from those under any of the three Tricare options.

Nevertheless, the improved coverage that many FEHB plans offer might enable some beneficiaries to save by canceling CHAMPUS supplemental insurance policies or other private coverage. Under Tricare, costs for different groups of beneficiaries will depend heavily on access to treatment in military facilities. Tricare Prime would probably cost active-duty dependents less than most HMO plans offered through FEHB. Choices are more difficult to analyze for retirees than for dependents of active-duty personnel, since they rely more heavily on other nonmilitary sources of insurance. For most retirees, FEHB alternatives would probably be more costly than Tricare Prime. A definitive answer to how net out-of-pocket expenses would change depends on unknown factors, such as the actual out-of-pocket expenses for CHAMPUS supplemental insurance or private insurance today and how those expenses would change under Tricare Prime.

BOX 7.
EFFECT ON AVERAGE FEHB PREMIUMS

Assuming that military beneficiaries are pooled together with other participants in the Federal Employees Health Benefits (FEHB) program, estimating the impact on the average premium is essential to calculating the costs to the government and to enrollees in the FEHB program. Several factors associated with offering military beneficiaries enrollment in FEHB are likely to affect premiums. Changes would arise from several differences between FEHB participants and military beneficiaries, including the distribution of the population by age and sex, the size of the family, the health status of the population, the type of coverage purchased--self only or family--and finally, the choice of health care plan.

On balance, military beneficiaries are unlikely to have a significant impact on FEHB premiums. That conclusion stems from analyzing the distribution of the population by age and sex. Despite differences between the age and sex distribution of all military beneficiaries eligible to enroll in the FEHB option and all people with coverage under the FEHB, the impact on the health insurance premiums under FEHB arising from those differences is likely to be negligible. (See Appendix C for a discussion of CBO's analysis to determine the impact on premiums from adding military beneficiaries to the pool of enrollees in the FEHB program.)

Other differences between eligible military beneficiaries and subscribers and their dependents under the FEHB program could affect premiums under FEHB. Their effects have not been calculated in this analysis, however, since they are uncertain. For example, one of those factors that CBO has not accounted for is that the number of people covered under a family policy would be higher among current subscribers than it would be for dependents of active-duty personnel enrolling in the FEHB program who purchase a family policy. The reason is largely that the active-duty sponsor would remain the responsibility of DoD. That difference would tend to lower the health insurance premiums under the FEHB program that result from adding military beneficiaries to the pool of current participants. It also has the potential to generate savings for the government from lower fixed government contributions but possibly higher costs for current participants. The choice of health care plan would also have an impact on the FEHB premiums.

Another way that military beneficiaries could affect FEHB premiums is if only high-risk individuals enrolled--or those with a higher probability of incurring illness--than current FEHB participants. If that situation occurred, FEHB premiums would probably rise to reflect the change in the underlying risk pool. How likely is that to happen? The greater the number of military beneficiaries who purchase a plan under the FEHB program, the lower the risk of attracting only high-risk individuals to the program. That is because there is no reason to believe that military beneficiaries on the whole are any healthier or sicker than the pool of current participants in the FEHB program. Alternatively, the danger of attracting only high-risk individuals to FEHB increases as fewer military beneficiaries opt to enroll. Of course, many other possible effects on the FEHB program have not been analyzed in this paper. Furthermore, many other changes might take place in the FEHB program--in the absence of this option to allow military beneficiaries to enroll--that could also affect FEHB premiums. Those changes have not been analyzed in this paper.

A similar pattern applies to beneficiaries choosing Tricare Standard: active-duty dependents would pay less than in some FEHB fee-for-service plans, whereas some retirees could pay about the same or more than under FEHB alternatives. However, retirees 65 years of age or older stand to benefit the most and experience reduced out-of-pocket expenses, assuming the plan of their choice becomes the wraparound benefit to their coverage under Medicare.

Option 2: Increase the Government's Contribution to 85 Percent of the Average FEHB Premium

The Congress could consider options to increase voluntary enrollment rates in the FEHB program by raising the average premium contribution that the government

TABLE 10. ENROLLMENT RATES OF ELIGIBLE MILITARY BENEFICIARIES IN THE FEHB PROGRAM UNDER THREE OPTIONS (In percent)

Type of Coverage	Dependents of Active-Duty Personnel (All Ages)	Retirees and Dependents	
		Under 65	65 or Older
	Option 1[a]		
Self Only	70	52	95
Family	70	37	95
	Option 2[b]		
Self Only	100	78	100
Family	100	54	100
	Option 3[c]		
Self Only	100	96	100
Family	100	70	100

SOURCE: Congressional Budget Office.

NOTE: FEHB = Federal Employees Health Benefits.

a. Assumes that the government pays about 72 percent of the average premium under the FEHB program.

b. Assumes that the government pays 85 percent of the average premium under the FEHB program.

c. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

makes on behalf of military beneficiaries. Any such option would obviously lead to higher government costs relative to the basic option, offsetting all of the savings from the basic option.

Under the first of two illustrative alternatives to Option 1, CBO raised DoD's share of the premiums of the plans actually selected by beneficiaries to an average of about 85 percent, in contrast to the 72 percent assumed under the basic option. Enrollees would pay the remaining 15 percent of the average premium, almost equal to what postal employees now pay on average (14 percent).

Effect on Government Costs. CBO estimates that the total cost to the government for this option would be $10.4 billion a year (see Table 9). Unlike Option 1, the cost to the government would be more than the savings that could be realized by downsizing and restructuring the military's direct care system. Net annual costs after full implementation could be on the order of $1.4 billion (again, not including closing costs for the military medical facilities).

Relative to the basic option, Option 2 would increase the costs to the government by about another $3.1 billion. Medicare costs would not rise under this option relative to the basic option, since the latter already takes into account all changes in Medicare spending for 100 percent of the eligible population.

Effect on Enrollment. Enrollment in the FEHB program would vary by beneficiary category, based on the estimated relative change in premium expenses between the military health care system and the FEHB program. Compared with the number of beneficiaries who rely on the military health care system today, this option would increase the number of dependents of active-duty personnel from 90 percent to 100 percent, and retirees and their families who are 65 years of age or older from roughly 30 percent to 100 percent (see Table 10). In addition, a greater number of retirees and their families under the age of 65 would enroll in the FEHB program than rely on the military system today.

Effect on Out-of-Pocket and Premium Expenses for Beneficiaries. As with Option 1, this alternative would increase out-of-pocket expenses for military beneficiaries enrolling in the FEHB program relative to what they pay for care today through the military health care system. For most beneficiaries, the largest effect would stem from additional premium costs. In addition, under most plans beneficiaries would face copayments different from those under any of the three Tricare options.

Considering both out-of-pocket expenses under Tricare and nonmilitary sources of insurance coverage, the net effect would differ among beneficiaries. Tricare Prime would probably cost active-duty dependents less than most HMO plans offered

through FEHB. However, for many retirees, net out-of-pocket expenses might be about the same under FEHB alternatives or Tricare Prime.

A similar pattern applies for beneficiaries choosing Tricare Standard: active-duty dependents would pay less than in most FEHB fee-for-service plans, but many retirees could pay more than under FEHB alternatives. Again, retirees 65 years of age or older stand to benefit the most, assuming the plan of their choice becomes the wraparound benefit to their coverage under Medicare.

Option 3: Limit Beneficiaries' Premiums to Levels Proposed for Tricare Prime

Another and more generous alternative for military beneficiaries than the base option would be to require that military beneficiaries pay only the enrollment fee proposed under Tricare Prime to enroll in a plan offered under the FEHB. That approach would increase the government's contribution to 100 percent for dependents of active-duty personnel and to about 90 percent for retirees and their families. Not surprisingly, this third option would lead to substantially higher levels of enrollment than either of the other two options for retirees and their families under the age of 65 as well as significantly higher costs for the government.

Effect on Government Costs. The Congressional Budget Office estimates that the total cost to the government would be $12.1 billion a year--substantially above the level of savings that could be realized by downsizing and restructuring the military's direct care system (see Table 9). Net annual costs after full implementation could be on the order of $3.1 billion (not including costs of closing military medical facilities). This option increases the costs to the government by about $4.8 billion relative to the basic option, or $1.7 billion more than Option 2. Medicare costs would not rise under this option relative to the basic option, since Option 1 already takes into account all changes in Medicare spending for 100 percent of the eligible population.

Effect on Enrollment. Under Option 3, 100 percent of dependents of active-duty personnel and 100 percent of beneficiaries 65 years of age or older would be expected to enroll in the FEHB program (see Table 10). CBO also expects that retirees and their families who are under the age of 65 would enroll in large numbers. Overall, this option would serve many more eligible military beneficiaries than the military cares for today.

Effect on Out-of-Pocket and Premium Expenses for Beneficiaries. Government costs would increase substantially under this option because enrollment fees are extremely low under Tricare Prime relative to the average premium for an FEHB plan. Except for dependents of active-duty personnel--who rely chiefly on the military health care

system today--costs for most beneficiaries probably would decline substantially compared with either the basic option or their situation today. The reason is the significantly lower share of the premium that they would have to pay to enroll.

OTHER FACTORS TO CONSIDER UNDER ANY FEHB OPTION

The illustrative options discussed in this chapter explore many of the effects on DoD, Medicare, and beneficiaries of offering military beneficiaries the option to enroll in a plan under the FEHB program. Two other factors, not yet considered, are discussed below.

Administrative Factors

In 1995, the total cost of FEHB to the federal government is about $16 billion. If coverage was provided to all potential DoD beneficiaries--including ghosts--the size of the FEHB program could increase by almost 75 percent. Even if the ghost population was excluded, the increase in volume would surely increase administrative costs for the program. Those added costs, which CBO has not included in its estimate, would offset only a small fraction of the potential savings. They would not be more than $20 million a year, based on the current administrative spending patterns of the Office of Personnel Management.

Apart from the increase in the volume of work, expanding FEHB to cover dependents of military personnel and retirees would raise several administrative issues. One issue that would emerge is how to handle enrollment for active-duty families, who move much more often than other federal workers. Another issue concerns self-only and self and family policies. The FEHB option assumes that spouses of active-duty personnel would be permitted to purchase policies, even though the active-duty member is the employee. Further, in many cases, a spouse without children or an only child in a single-parent family might benefit from purchasing a lower-cost self-only policy. The Office of Personnel Management would have to resolve those administrative questions, perhaps in a manner consistent with the interests of military families.

Budgetary Treatment of FEHB Costs

All of the FEHB options would have pay-as-you-go implications under the budgetary enforcement rules of current deficit reduction laws. First, the employer contribution for premiums of annuitants is considered to be an entitlement subject to pay-as-you-

go procedures. Second, legislation that increased participation in either Medicare Part A or B would also be subject to those procedures. The FEHB options discussed in this chapter would raise Medicare participation because people who now receive care in military treatment facilities would instead be treated in the civilian sector under Medicare.

Under current law, fixed caps on total discretionary spending in the federal budget govern the total amount that can be spent for all individual discretionary programs, including military health care. A reduction in DoD's health care budget--for example, from making the care of retirees age 65 and over the responsibility of Medicare--thus would not necessarily reduce total discretionary spending. Moreover, it particularly could not be used to offset increases in mandatory spending such as Medicare costs. Under the scoring rules of the Omnibus Budget Reconciliation Act of 1993, putting an FEHB option into place for military personnel would require offsets in pay-as-you-go spending and perhaps an adjustment in the legislative cap on discretionary spending.

PUTTING THE OPTIONS TOGETHER

Restructuring the military health care system around its wartime mission would require DoD and the Congress to proceed unambiguously with separating peacetime care from wartime readiness. An incremental approach to changing the size and structure of the military health care system would not work without an increase in funds, since savings would not be sufficient initially to pay for the cost of providing health care to the military population in the civilian sector. Other factors, such as the complexity of the military health care system and the delicate balancing act of the dual responsibilities of the department, would also preclude seriously considering an incremental approach to reducing the size of the military medical establishment.

The options outlined in this chapter present an alternative approach for providing wartime and peacetime medical care. Merely meeting the wartime requirements would permit DoD to reduce its system substantially and adopt a number of new strategies, perhaps including using civilian shock trauma centers and stronger relationships with civilian hospitals. Adopting only some of those options either would leave the department short of meeting wartime requirements or would increase the tension between wartime readiness and peacetime care. CBO's analysis of options for peacetime are focused on the role of the FEHB program. Although other ways exist to provide peacetime care, the FEHB plans offer the advantages of availability and administrative familiarity in providing coverage for millions of federal employees and retirees and their dependents and survivors.

APPENDIX A

CBO'S METHOD FOR COMPARING DIAGNOSES TREATED DURING PEACETIME AND WARTIME

This appendix describes the method that the Congressional Budget Office used to determine the match between the diagnoses treated during peacetime at military medical facilities worldwide and those diagnoses that could be expected to occur during wartime. To conduct that analysis, several databases were used and developed. Findings indicate that the care furnished in military medical centers and hospitals in peacetime bears little relation to many of the diseases and injuries that military medical personnel need to be trained to deal with in wartime.

METHOD

CBO compared the diagnoses during peacetime with those expected during wartime based on a standardized diagnoses system, referred to as the International Classification of Diseases, Ninth Revision (ICD-9). Research conducted by the Naval Health Research Center (NHRC) converts patient conditions expected to occur during wartime to the ICD-9 coding scheme. Since the Department of Defense (DoD) already uses the ICD-9 coding scheme to describe the diagnoses treated at the military medical facilities, CBO could match the diagnoses during peacetime and wartime by their ICD-9 codes. Performing that comparison required two specific databases: one consisting of all principal diagnoses for inpatients during peacetime, and a second on patient conditions during wartime and the ICD-9 diagnoses linked to those conditions.

PRINCIPAL DIAGNOSES FOR MILITARY MEDICAL FACILITIES WORLDWIDE

A database of all inpatient records from all military medical facilities worldwide was constructed based on data from the Central Retrospective Case-Mix Analysis System for an Open System Environment (RCMAS-OSE). RCMAS-OSE is a management information system that the Department of Defense uses to support health care analysis. More than 1 million records are included in that database, reflecting the workload for all military medical facilities worldwide in 1993. Each record contained in the database lists a principal diagnosis, indicating the primary nature of treatment provided to each inpatient. RCMAS-OSE identifies the diagnoses for each inpatient record based on the ICD-9 diagnoses system. Although multiple diagnoses

are listed for each record, CBO considered only primary diagnoses for the analysis presented in this paper.

DIAGNOSES RELATING TO WARTIME CONDITIONS

To conduct the comparison, a second database of diagnoses relating to patient conditions expected during wartime was constructed. That database relied on research conducted by the NHRC and in part on the list of patient conditions maintained by the Defense Medical Standardization Board (DMSB). The DMSB maintains a list of over 300 patient conditions that it considers representative of the injuries and illnesses expected in an operational theater. The chief reason for that list of patient conditions is to project the medical requirements necessary to treat the conditions expected to occur during wartime. Based on the anticipated number of hospitalizations for each patient condition, the list allows the DMSB to determine the medical equipment and personnel that would need to be deployed in a given scenario.

In comparing the diagnoses treated at the military medical facilities with those expected during wartime, CBO relied on the NHRC's method. The center uses a former list of 348 patient conditions maintained by the DMSB as a starting point from which a new list of 314 patient conditions was established and then divided between two diagnostic categories: disease and nonbattle injuries (DNBI) and battle injury or wounded-in-action (WIA). In all, the center's two categories contained 216 DNBI patient conditions and 98 patient conditions of battle injuries.

The Naval Health Research Center has developed a procedure for mapping ICD-9 codes to a patient condition falling into either the DNBI or battle injury category. Because patient conditions are broadly defined but the ICD-9 coding schema is very detailed, multiple ICD-9 codes may make up a single condition and indeed may do so for most conditions. Alternatively, some ICD-9 codes may map to more than one condition.

After developing those two databases, CBO then matched the principal diagnoses treated during peacetime and those expected during wartime, as defined by the NHRC, by their ICD-9 codes (see Table A-1 for the results of that analysis).

MATCHING PEACETIME DIAGNOSES AND THOSE FOR U.S. MARINES IN VIETNAM

Based on the NHRC's system for mapping ICD-9 codes to patient conditions, CBO created a database of certain patient conditions among U.S. marines in Vietnam and their ICD-9 codes. CBO then matched the principal diagnoses treated during peacetime with the wartime conditions (see Table A-2).

That comparison is limited in two specific ways. First, CBO limited its analysis to an examination of only the top 25 diagnostic categories of each type. The top 25 diagnostic categories for DNBI represented 60 percent of the total care delivered to U.S. marines in Vietnam, whereas for battle injuries they represented close to 85 percent of total care (see Table A-3). Second, CBO limited its comparison to the top 50 primary diagnoses treated at military medical centers, which represent only 35 percent of the total care delivered at those facilities (see Table A-4).

R ADAMS COWLEY SHOCK TRAUMA CENTER

To compare the diagnoses expected during wartime and those expected to occur most frequently in a civilian shock trauma unit, the Congressional Budget Office obtained a data set of diagnoses, by ICD-9 code, treated at the R Adams Cowley Shock Trauma Center (see Chapter 2). The list included all records of injuries maintained by the trauma registry for 1993 and the ICD-9 codes for those injuries. The NHRC list of diagnoses expected during wartime was then matched with those representing the injuries treated at the R Adams Cowley Shock Trauma Center on the basis of ICD-9 codes (see Table A-5).

TABLE A-1. MATCH BETWEEN THE TYPES OF CONDITIONS TREATED DURING PEACETIME AT MILITARY MEDICAL FACILITIES WORLDWIDE AND THOSE THAT COULD BE EXPECTED DURING WARTIME

	Records			ICD-9 Codes		
	Total	Match	Percentage of Total	Total	Match	Percentage of Total
Disease and Nonbattle Injury Conditions						
Medical Centers	316,009	235,401	74	6,174	4,478	73
All Other Hospitals	721,322	529,791	73	7,021	4,985	71
Total	1,037,331	765,192	74	13,195	9,463	72
Wounded-In-Action Conditions						
Medical Centers	316,009	18,355	6	6,174	1,122	18
All Other Hospitals	721,322	40,015	6	7,021	1,335	19
Total	1,037,331	58,370	6	13,195	2,457	19

SOURCE: Congressional Budget Office based on an analysis of data for 1993 from the Defense Department's Retrospective Case-Mix Analysis System for an Open System Environment.

NOTE: ICD-9 = International Classification of Diseases, Ninth Revision. The match between conditions treated during peacetime and those that could be expected during wartime was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

TABLE A-2. MATCH BETWEEN THE CONDITIONS MOST FREQUENTLY TREATED AT THE MILITARY MEDICAL CENTERS AND THOSE THAT MOST FREQUENTLY OCCURRED AMONG U.S. MARINES IN VIETNAM

	Conditions	
	Diseases and Nonbattle Injuries	Wounded in Action
Total Records	107,088	107,088
Match	22,948	0
Percentage of Records That Match	21	0

SOURCE: Congressional Budget Office based on data from the Naval Health Research Center.

NOTE: The match between the conditions treated at the military medical centers and those that occurred among U.S. marines was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

TABLE A-3. TOP 25 DIAGNOSTIC CATEGORIES AMONG U.S. MARINES IN VIETNAM

Battle Injury[a]	Disease and Nonbattle Injury[b]
Open Wounds Multiple/Other/Unspecified	Other Symptoms/Ill-Defined Conditions
Open Wound/Knee/Lower Leg/Ankle	Febrile Illness Excluding Pneumonia
Wound Face/Jaws/Neck	Cellulitis and Abscess
Open Wound Hip/Thigh	Infective and Parasitic Diseases/Other
Open Wound Upper Limb(s) Multiple	Neurosis/Personality Disorders/TSD/Conduct
Open Wound Lower Limb(s) Multiple	Gastritis Duodenitis/Enteritis/Colitis
Open Wound Elbow/Forearm/Wrist	Diarrheal Disease/Dysentery
Fracture Tibia and Fibula	Other Infections Skin and Subcutaneous Tissue
Open Wound Hand(s)/Fingers	Nervous System/Sense Organ Disorders/Other
Open Wound Shoulder/Upper Arm	Helminthiasis
Fracture Hand/Wrist/Fingers	Supplemental Classification/Special Conditions
Fracture Radius/Ulna	Effects Heat/Light
Fracture Femur	Respiratory System Diseases Other
Open Wound Foot/Toes	Neoplasms Benign and Unspecified
Open Wound Buttocks	Strains/Sprains Multiple/Other/Unspecified
Fracture Multiple/Other/Unspecified	Arthropathies/Joint Disorders/Other
Fracture Ankle/Foot/Toes	Dermatophytosis and Dermatomycosis
Fracture Humerus	Strains/Sprains Ankle/Foot
Concussion	Behavioral Disorders/Other
Multiple Fragment Wound Brain	Male Genital Organs/Other Disorders
Open Wound Perforation Ear	Ear and Mastoid, Other Diseases of
Multiple Fragment Wound Back	Bronchitis and Bronchiolitis
Pneumothorax/Hemothorax	Open Wound Hands/Fingers
Multiple Fragment Wound Chest	Hernia Abdominal Cavity All Types
Fracture Face Bones	Appendicitis

SOURCE: Congressional Budget Office based on data from the Naval Health Research Center.

NOTE: TSD = traumatic stress disorder.

a. The top 25 battle injury diagnostic categories represent close to 85 percent of the total care delivered to U.S. marines in Vietnam within this category of injury.

b. The top 25 diagnostic categories for disease and nonbattle injuries represent close to 60 percent of all care delivered to U.S. marines in Vietnam within this category of injury.

TABLE A-4. TOP 50 PRINCIPAL DIAGNOSES AT THE MILITARY MEDICAL CENTERS, 1993

	Description	Records
1.	Single Infant Born in Hospital, Without Cesarean Delivery	20,865
2.	Coronary Atherosclerosis	4,879
3.	Single Infant Born in Hospital, by Cesarean Delivery	4,359
4.	Unspecified Chest Pain	3,694
5.	Encounter for Chemotherapy	3,495
6.	Inguinal Hernia Not Otherwise Specified, Unilateral or Unspecified	3,366
7.	Unspecified Cataract	2,881
8.	Sterilization	2,716
9.	Delivery in a Completely Normal Case	2,500
10.	Pneumonia, Organism Unspecified	2,478
11.	Fetal Distress Affecting Management of Mother, Delivered	2,239
12.	Threatened Premature Labor, Antepartum	2,119
13.	Unspecified Otitis Media	1,965
14.	Benign Neoplasm of Colon	1,948
15.	Intermediate Coronary Syndrome	1,880
16.	Congestive Heart Failure	1,870
17.	Asthma, Unspecified Type, Status Asthmaticus Not Mentioned	1,782
18.	Deviated Nasal Septum	1,772
19.	Abdominal Pain	1,725
20.	Intervertebral Disc Displacement Without Myelopathy, Lumbar	1,722
21.	Calculus of Gallbladder with Other Cholecystitis	1,666
22.	Alcohol Dependence, Other and Unspecified, Unspecified Use	1,661
23.	Atrial Fibrillation	1,625
24.	Second-Degree Perineal Laceration, Delivered	1,570
25.	Disturbances in Tooth Eruption	1,548
26.	First-Degree Perineal Laceration, Delivered	1,543
27.	Esophagitis	1,461
28.	Follow-Up Examination Following Surgery	1,384
29.	Observation for Other Specified Suspected Conditions	1,344
30.	Chronic Tonsillitis	1,288
31.	Cancer of Prostate	1,266
32.	Old Disruption of Anterior Cruciate Ligament	1,215
33.	Chronic Airways Obstruction, Not Elsewhere Classified	1,163
34.	Gastroenteritis and Colitis, Other/Unspecified Noninfectious	1,142
35.	Acute Appendicitis Without Mention of Peritonitis	1,128
36.	Cord Entanglement Without Mention of Compression, Delivered	1,124
37.	Spontaneous Abortion, Incomplete	1,123
38.	Convulsions	1,119
39.	Other Follow-Up Examination	1,115
40.	Early Onset of Delivery, Delivered	1,094

(Continued)

TABLE A-4. CONTINUED

	Description	Records
41.	Aftercare, Removal of Fracture Plate, Internal Fixation Device	1,089
42.	Adjustment Reaction with Brief Depressive Reaction	1,072
43.	Previous Cesarean Delivery in Pregnancy, Delivered (Rev. Oct. 1992)	1,068
44.	Redundant Prepuce and Phimosis	1,059
45.	Urinary Tract Infection, Site Not Specified	1,039
46.	Alcohol Dependence, Other and Unspecified, Continuous Use	1,035
47.	Carpal Tunnel Syndrome	1,012
48.	Hyperplasia of Prostate	998
49.	Diffuse Cystic Mastopathy	950
50.	Volume Depletion	932

SOURCE: Congressional Budget Office based on data from the Defense Department's Retrospective Case-Mix Analysis System for an Open System Environment.

NOTE: The top 50 principal diagnoses treated at the military medical centers represent approximately 35 percent of the total cases treated at the military medical centers.

TABLE A-5. MATCH BETWEEN THE TYPES OF CONDITIONS TREATED AT THE R ADAMS COWLEY SHOCK TRAUMA UNIT AND THOSE EXPECTED DURING WARTIME

	Conditions	
	Diseases and Nonbattle Injuries	Wounded in Action
Trauma Admissions		
Total	19,850	19,850
Match	92	19,534
Percentage of records that match	0.5	98
ICD-9 Codes		
Total	305	305
Match	2	301
Percentage of diagnoses that match	0.7	99

SOURCE: Congressional Budget Office based on an analysis of the data for 1993 from the R Adams Cowley Shock Trauma Center, Baltimore, Maryland.

NOTE: The match between conditions treated at the R Adams Cowley Shock Trauma Center and those that could be expected during wartime was estimated by CBO using the diagnoses system of the International Classification of Diseases, Ninth Revision.

APPENDIX B

SAVINGS FROM SIZING THE MILITARY HEALTH CARE SYSTEM TO ITS WARTIME MISSION ONLY

This appendix describes the method that the Congressional Budget Office used to estimate savings from downsizing the military health care system in the United States to its wartime requirements. That estimate of savings in steady state--about $9 billion annually--is based on the President's budget request submitted to the Congress for fiscal year 1996. It is important to point out that the savings estimated in this appendix do not take into account the cost to the Department of Defense of providing health care to non-active-duty beneficiaries in ways other than through the military health care system. Had those costs been considered, as they are in Chapter 5 of this paper, they might have offset some--or perhaps even all--of those savings.

The approach described here is only one of several ways to estimate savings from reducing the size of the military health care system. A higher or lower estimate of savings could result from differences in definitions of the wartime mission and the levels of funding required to support that mission. Other factors could also influence estimates of savings from downsizing the system. For example, a more comprehensive accounting of the resources spent to support the medical mission of the department could lead to larger savings. CBO's estimates of savings are based on only those costs captured by the accounting method used by the Assistant Secretary of Defense for Health Affairs. The total medical budget for defense, however, is arguably higher than the approximately $15.5 billion budget identified by Health Affairs.

METHOD

CBO's estimate of savings is based on an estimate that DoD would need to spend $6.5 billion in 1996 to perform the wartime medical mission. That estimate includes funding for four specific accounts included in the total medical budget: operation and maintenance, military medical personnel, procurement, and construction (see Table B-1). In addition, that estimate assumes that DoD would no longer provide health care to nonactive-duty beneficiaries.

DOD'S CAPITATION MODEL

To estimate the costs of the wartime mission, CBO used the framework of the capitation method developed by the Office of Health Affairs, since DoD currently uses that approach to determine the level of financing needed to support the medical missions of each of the three services. DoD's capitation model divides the two most significant pieces of the medical budget--military personnel and operation and maintenance funding--into three categories of spending. (DoD excludes the rest of the medical budget--that is, funding for procurement and construction--from consideration under this model.)

TABLE B-1. ILLUSTRATIVE ESTIMATE OF SAVINGS IN DoD's TOTAL MEDICAL BUDGET IN 1996 FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of dollars)

Budget Category	Proposed Budget		Reduction in Budget	
	Total[a]	Wartime[b]	Dollars	Percentage
Operation and Maintenance	9,866	3,092	6,773	69
Procurement	288	144	144	50
Military Personnel	4,997	3,078	1,919	38
Construction	314	157	157	50
Total	15,464	6,472	8,993	58

SOURCE: Congressional Budget Office.

NOTE: Estimates of the reduction in the total medical budget from sizing the military health care system to its wartime mission only exclude several additional costs, including the cost of providing health care to military beneficiaries in the United States other than active-duty personnel and any implementation costs associated with downsizing, such as the costs of facility closures.

a. The total medical budget as proposed by the President for 1996. These estimates exclude any other Department of Defense expenses that are not captured by the accounting system used by the Assistant Secretary of Defense for Health Affairs.

b. The budget for the wartime mission as estimated by CBO. These estimates include providing health care to all military beneficiaries living in locations overseas and active-duty personnel in the United States.

Category 1: Military Health Care Support

This category includes those services that are not directly related to the size of the military force structure but that DoD considers are specifically related to the department's wartime mission. Several types of activities are included in this category, such as the Armed Forces Institute of Pathology and all spending on care provided overseas.

Category 2: Medical Readiness and Unique Requirements for Active-Duty Personnel

This category includes those services that are more directly related to the size of the military force structure than the services included in category 1, and thus are considered to be specifically linked to the department's wartime mission. The category includes a range of services, such as all readiness exercises, training, veterinary services, and spending on medical education.

Category 3: Medical Health Care Services

This category includes all resources remaining in the total medical budget after those in the first two categories have been identified. Almost 75 percent of the total medical budget falls into this third category, which is intended to encompass those services that are most directly comparable to civilian health care. For example, included in this category are the costs of care provided to beneficiaries in the United States--including care provided to active-duty personnel--in military medical facilities and under the Civilian Health and Medical Program of the Uniformed Services.

DIVIDING THE TOTAL MEDICAL BUDGET INTO PEACETIME AND WARTIME COSTS

To determine the funding required to support the wartime mission--as well as the savings in the total medical budget from sizing the military health care system to its wartime mission--CBO first apportioned funding for both operation and maintenance activities and military medical personnel among the three categories of spending that DoD describes in its capitation method. (That task was performed by CBO based on the data provided by the Department of Defense in its budget proposal for 1996.) The funding required to support the wartime mission was then estimated as described in the following sections.

OPERATION AND MAINTENANCE

This section of the appendix describes how CBO estimated the funding that might be required from the budget for operation and maintenance (O&M) that would be needed to support the wartime mission. It also examines the reduction in the O&M budget from reducing the size of the military health care system to its wartime mission only (see Table B-2).

Categories 1 and 2

With the exception of those costs that are specifically related to the number of active-duty military personnel, CBO assumed that all O&M costs in categories 1 and 2 were needed to support the wartime mission. Those costs include all those related to providing care to military beneficiaries living in overseas locations. As Table B-2 shows, however, the proposed amounts for health care professional scholarships and education and training were reduced by 50 percent, in proportion to the reduction in the military medical work force under a downsized system.

Category 3

O&M costs included in this category reflect a range of services that the department provides to its beneficiaries. For example, the cost of operating military medical facilities and CHAMPUS are included in this category (as shown in Table B-2).

Funding for O&M activities related to peacetime care was reduced by about 70 percent, reflecting the fraction of total care received by non-active-duty military beneficiaries living in the United States. Specific programs not providing benefits for active-duty personnel were eliminated entirely. A reduction of only 50 percent was made in the Defense Medical Programs Activity, however, to reflect the mix of peacetime- and wartime-related systems that this fund supports. For example, the fund supports the costs of several automated systems, some with dual missions. Examples include the Medical Expense Reporting System, the Composite Health Care System, and the Blood Supply System.

MILITARY PERSONNEL

DoD's capitation method treats all military medical personnel resources falling into categories 1 and 2 as related to the wartime mission. Funding for resources in category 3 was reduced by 70 percent, based on the proportion of care received by

active-duty personnel. Overall, CBO estimates that about 60 percent of the resources for military medical personnel would be needed to support the wartime mission (see Table B-3).

MILITARY PROCUREMENT AND MILITARY CONSTRUCTION

Estimates of costs needed to support the peacetime and wartime missions could not be made for military procurement and construction based on DoD's capitation model. CBO assumed that 50 percent of the funding in each account would be needed to support the wartime mission.

TABLE B-2. ILLUSTRATIVE ESTIMATE OF ANNUAL SAVINGS IN DOD's BUDGET FOR OPERATION AND MAINTENANCE FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of 1996 dollars)

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Categories 1 and 2				
Armed Forces Institute of Pathology	32	32	0	0
Aeromedical Evacuation System	83	83	0	0
Environmental Compliance	17	17	0	0
Medical Centers/Hospitals/ Clinics OCONUS	233	233	0	0
Dental Care OCONUS	52	52	0	0
Facility Support[b]	84	84	0	0
Military Unique Requirements	96	96	0	0
Veterinary Services	10	10	0	0
Health Care Professional Scholarships	86	43	43	50
Education and Training	87	43	43	50
Uniformed Services University of the Health Sciences	44	44	0	0
Examining Activities	23	23	0	0
Other Health Activities	128	128	0	0
Military Public/Occupational Health	191	191	0	0
Subtotal	1,165	1,079	86	7

(Continued)

TABLE B-2. CONTINUED

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Category 3				
Medical Centers/Hospitals/ Clinics CONUS	2,941	1,176	1,765	60
PRIMUS/NAVCARE Clinics	94	28	66	70
Dental Care CONUS	135	135	0	0
Facility Support[b]	801	240	561	70
Management Headquarters	26	8	18	69
Emergency Care for Military Personnel	181	181	0	0
Visual Information Systems	12	4	8	67
Other Health Activities	128	128	0	0
CHAMPUS Benefits and Administration	2,484	0	2,484	100
Health Care Support Contracts	1,356	0	1,356	100
Uniformed Services Treatment Facilities	316	0	316	100
Defense Medical Programs Activity	226	113	113	50
Subtotal	8,700	2,013	6,687	77
All Operation and Maintenance Costs				
Total	9,866	3,092	6,773	69

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTES: Estimates of the reduction in the budget are based on the President's budget request for 1996. Reductions shown here are illustrative only and exclude many other costs related to downsizing the military medical system, including the costs of closing military medical facilities.

OCONUS = Outside the continental United States; CONUS = continental United States; PRIMUS = Army civilian-run outpatient clinics; NAVCARE = Navy civilian-run outpatient clinics; CHAMPUS = Civilian Health and Medical Program of the Uniformed Services.

a. Budget for the wartime mission as estimated by CBO.

b. Includes funding for minor construction, maintenance and repair, base communications, base operations, and real-property services.

TABLE B-3. ILLUSTRATIVE ESTIMATE OF ANNUAL SAVINGS IN THE BUDGET FOR MEDICAL MILITARY PERSONNEL FROM DOWNSIZING THE MILITARY HEALTH CARE SYSTEM IN THE UNITED STATES TO ITS WARTIME REQUIREMENTS (In millions of 1996 dollars)

	Proposed Budget		Reduction in Budget	
	Total	Wartime[a]	Dollars	Percentage
Costs in Categories 1 and 2	2,256	2,256	0	0
Costs in Category 3	2,741	822	1,919	70
Total	4,997	3,078	1,919	38

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: Estimates of the reductions in military personnel from sizing the military health care system to its wartime mission only are based on the President's budget request for 1996.

a. Budget for the wartime mission as estimated by CBO.

APPENDIX C

ESTIMATING THE EFFECTS OF ENROLLING MILITARY BENEFICIARIES IN THE FEHB PROGRAM

As discussed in Chapter 5, one way for the Department of Defense to provide peacetime care would be to offer military beneficiaries an opportunity to participate in the Federal Employees Health Benefits program on a voluntary basis (active-duty personnel would not be eligible). Regardless of their enrollment in the FEHB program, military beneficiaries other than active-duty personnel would no longer have the option to receive care from the military health care system, either at military medical facilities or under CHAMPUS.

Estimates are presented in Chapter 5 of the cost to the government of enrolling military beneficiaries in the FEHB program under each of three options--a basic option and two additional ones with more generous benefits. Essential to all three estimates are two key assumptions: the number of people who would enroll in the FEHB program and, equally important, how enrolling military beneficiaries would affect the average FEHB premiums.

ESTIMATING ENROLLMENT LEVELS

How many military beneficiaries would enroll in the FEHB program? A considerable amount of uncertainty rests with estimating levels of enrollment in the FEHB program among military beneficiaries. Nonetheless, estimates of enrollment rates were needed for cost-estimating purposes.

To estimate levels, CBO assumed that military beneficiaries would have an annual opportunity to elect or change plans until age 62. (After age 62, eligible military beneficiaries would not be eligible to enroll in the FEHB program.) Beneficiaries wishing to participate in the FEHB program after 62 years of age would have to enroll in a plan under the FEHB program by 62 years of age and remain continuously enrolled after that. As a result of that assumption, enrollment levels vary by category of beneficiary, thereby reflecting the sequential nature of decisions to enroll in the FEHB program.

ESTIMATING ENROLLMENT LEVELS FOR THOSE UNDER 65 YEARS OF AGE

To estimate enrollment levels for the three options presented in this paper, CBO first estimated the rates of enrollment among military beneficiaries under the basic option. Then, rates for the two additional options were estimated relative to the basic option. That method was only used for estimating the participation rates among dependents of active-duty personnel and retirees and their families under 65 years of age. (For reasons discussed later in this appendix, CBO did not apply that method to military beneficiaries 65 years of age or older.)

ESTIMATING ENROLLMENT UNDER THE BASIC OPTION

Estimated rates of participation in the FEHB program among military beneficiaries under the basic option were developed by estimating rates of nonparticipation for eligible military beneficiaries and then subtracting the rate of nonparticipation from 100 percent. Those estimates were made by type of policy (self-only and family coverage) and by category of beneficiary (dependents of active-duty personnel and retirees and their dependents).[1]

Nonparticipation rates for military beneficiaries reflected the rate of nonparticipation in the FEHB program today among eligible federal workers and the rate of eligibility for employer-provided private insurance among military beneficiaries. Military beneficiaries are assumed to behave like other federal employees, but their behavior is also assumed to be affected by any additional options that they might have to purchase health insurance.[2]

CBO assumed that about 75 percent of those eligible for private insurance would not enroll in the FEHB program, based on consideration of the difference between the share of the premium paid by the government under the FEHB program and that paid by typical private employers. Under the FEHB program, the share of the premium that the government pays is about 72 percent on average, while private employers pay about 85 percent on average of premiums for their employees.

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1. Data from the Defense Manpower Data Center were used to determine how the total military population of active-duty dependents, retirees, and their families might be distributed by type of policy.

2. For example, the number of choices to purchase employer-provided health insurance would be greater for an employed spouse of an active-duty personnel member compared with an unmarried federal worker. In addition to the choice that all spouses of active-duty personnel would face to enroll in the FEHB program, some working spouses are eligible to purchase health insurance coverage from their employer. Yet most federal workers who are not married would probably have the option of only enrolling in the FEHB program.

The data used to estimate nonparticipation rates came from the Office of Personnel Management (OPM) and the Department of Defense. According to OPM, the rate of nonparticipation among active workers who are eligible for coverage under the FEHB program is about 11 percent for unmarried people and about 21 percent for married people. Data on eligibility for private insurance among military beneficiaries were based on the 1992 DoD Survey of Military Medical Care Beneficiaries (see Table C-1). Based on that data, nonparticipation rates were estimated by adding the nonparticipation rate in the FEHB program and 75 percent of those eligible for private insurance. Actual participation rates could be higher or lower than assumed by CBO.

ESTIMATING ENROLLMENT LEVELS UNDER THE MORE GENEROUS OPTIONS

For the additional options, enrollment levels were estimated relative to the basic option. That estimate was done by examining how the percentage of military beneficiaries enrolling in the FEHB program under the basic option would change in response to a change in their premium expenses under the other options. Again, CBO estimated enrollment levels by type of policy (self-only and family coverage) and by beneficiary category (dependents of active-duty personnel and retirees and their dependents).

TABLE C-1. ELIGIBILITY FOR PRIVATE INSURANCE AMONG MILITARY BENEFICIARIES (In percent)

	Active-Duty Personnel	Retirees Under Age 65	Retirees 65 or Older
Single	n.a.	50	70
Married	25	70	75

SOURCE: Congressional Budget Office estimates.

NOTE: n.a. = not applicable. Percentages are rounded to the nearest 5 percent.

Estimates of eligibility for private insurance are based on the 1992 DoD Survey of Military Medical Care Beneficiaries. Respondents included active-duty personnel, retirees, and survivors.

For the two additional options, the percentage change in the number of military beneficiaries enrolling in the FEHB program in response to the percentage change in the premium expenses under the basic option was estimated using an arc elasticity formula:

$$Q_1 = Q_0 [1 + E(P_1 - P_0)/(P_1 + P_0)]/[1 - E(P_1 - P_0)/(P_1 + P_0)]$$

where

Q = percentage enrolled in the FEHB program;
P = average premium;
E = elasticity (with appropriate sign attached);
0 = initial point; and
1 = new point.

USING THE ARC ELASTICITY FORMULA AND ASSIGNED VALUES TO CALCULATE ENROLLMENT LEVELS

In this formula, Q_1 represents the calculated level of enrollment among military beneficiaries in the FEHB program, given the assigned values for the other variables. (See Table C-2 for the values used for each variable in calculating the enrollment rates for self-only and family coverage under the two additional options examined in this paper.) Based on those calculated enrollment rates, Table C-3 shows the estimated number of subscribers among military beneficiaries by type of policy under the two additional options (plus the basic option).

Price Elasticity

One of the key values needed for this formula is the price elasticity, defined as the percentage change to be expected in a given value in response to a specified percentage change in one of its determinants. CBO used an elasticity estimated by Marquis and Long from a study of participation in health insurance among people with no access to employment-based insurance.[3] Marquis and Long report a long-run price elasticity of -0.60, meaning that a 10 percent increase in the costs of insurance would reduce the rate of participation by 6 percent.

3. M.S. Marquis and S.H. Long, *Worker Demand for Health Insurance in the Non-Group Market* (Santa Monica, Calif.: RAND, June 1993).

TABLE C-2. ASSIGNED VALUES USED IN CALCULATING ENROLLMENT RATES FOR SELF-ONLY AND FAMILY COVERAGE UNDER TWO FEHB OPTIONS

	Q_o	E	P_o	P_1	Calculated Q_1
Option 2[a]					
Dependents of Active-Duty Personnel					
Self-only	0.70	-0.60	595	330	0.99
Family	0.70	-0.60	1,395	745	1.02
Retirees and Dependents Under 65					
Self-only	0.52	-0.60	695	345	0.78
Family	0.37	-0.60	1,430	765	0.54
Option 3[b]					
Dependents of Active-Duty Personnel					
Self-only	0.70	-0.60	595	0	2.81
Family	0.70	-0.60	1,395	0	2.81
Retirees and Dependents Under 65					
Self-only	0.52	-0.60	695	230	0.96
Family	0.37	-0.60	1,430	460	0.70

SOURCE: Congressional Budget Office.

NOTES: CBO assumed that enrollment rates would be 100 percent if calculated Q_1 was equal to or greater than 1.0.

FEHB = Federal Employees Health Benefits; Q_o = initial level of enrollment; E = elasticity; P_o = initial price; P_1 = new price; Q_1 = new level of enrollment. The preceding are the values needed to calculate enrollment levels in the FEHB program among military beneficiaries using an arc elasticity formula. Estimates of price for family coverage for the military include an imputed amount for active-duty personnel.

a. Assumes that the government pays 85 percent of the average premium under the FEHB program.

b. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

TABLE C-3. ESTIMATED NUMBER OF SUBSCRIBERS AMONG MILITARY BENEFICIARIES IN FISCAL YEAR 1996 UNDER THREE FEHB OPTIONS, BY TYPE OF POLICY (In thousands)

	Self-Only	Family	Total
	Option 1[a]		
Dependents of Active-Duty Personnel	222	439	661
Retirees and Dependents			
Under 65	150	389	539
65 or older	177	364	542
Total	550	1,193	1,742
	Option 2[b]		
Dependents of Active-Duty Personnel	314	628	942
Retirees and Dependents			
Under 65	226	568	794
65 or older	187	384	570
Total	727	1,579	2,306
	Option 3[c]		
Dependents of Active-Duty Personnel	317	628	945
Retirees and Dependents			
Under 65	286	736	1,022
65 or older	187	384	570
Total	790	1,747	2,537

SOURCE: Congressional Budget Office calculations based on data provided by the Defense Manpower Data Center.

NOTE: FEHB = Federal Employees Health Benefits.

a. Assumes that the government pays 72 percent of the average premium under the FEHB program.

b. Assumes that the government pays 85 percent of the average premium under the FEHB program.

c. Assumes that the government pays 100 percent of the average premium under the FEHB program for dependents of active-duty personnel and about 90 percent for retirees and dependents.

Price: Average Premium

The other key values needed to calculate the enrollment levels using an arc elasticity formula are P_0 (the initial price) and P_1 (the new price). The initial price represents the share of the premium paid by the employee under the basic option, whereas the new price represents the share of the premium paid by the employee under each of the additional options. (For reasons discussed later in this appendix, CBO did not apply this method to military beneficiaries 65 years of age or over.) An average share of the premium was calculated for all three options for two categories of subscribers: active workers and annuitants. All calculations assume that the appropriate comparisons to make are between dependents of active-duty personnel and active workers, and between retirees and their dependents and annuitants.

For the basic FEHB option (the first of the three options), CBO assumed that the average premiums for military beneficiaries enrolling in the FEHB program would be the same as average premiums for enrollees in the program today. To determine what those premiums were, CBO calculated average premiums to the government for 1996 for both active workers and annuitants. Under Option 2--which assumes that the government contribution would increase from about 72 percent to 85 percent of the average premium--the share of the premiums paid by beneficiaries were lowered accordingly. Option 3 assumes that all beneficiaries would pay no more on average than what they would be required to pay for enrolling in Tricare Prime (the HMO option offered by DoD). For that option, CBO simply reduced the average premium for military beneficiaries to an amount equal to their enrollment fee under Tricare Prime.

ENROLLMENT IN THE FEHB PROGRAM AMONG MILITARY BENEFICIARIES AGE 65 OR OLDER

Military beneficiaries who are 65 years of age or older are not eligible for care in the civilian sector reimbursed under CHAMPUS. Those beneficiaries may use only the direct care system. Given the system of priority-based access to care at military medical facilities, DoD estimates that roughly 30 percent rely on the military as their primary source of care. Based on that estimate, CBO assumed that the majority of beneficiaries in this group rely on other forms of health care coverage, such as Medicare.

Since Medicare may be the primary source of insurance coverage for most beneficiaries who are 65 years of age or older, CBO assumed that they would have a strong incentive to purchase a policy offered under the FEHB program under all three options, because many FEHB plans provide complete wraparound coverage to

Medicare. The differences--and incentives--are so strong for military beneficiaries who are eligible for Medicare to enroll in a plan under the FEHB program that CBO assumed enrollment rates of 95 percent under the basic option and 100 percent under the two enriched alternatives.

ESTIMATING THE EFFECT ON AVERAGE FEHB PREMIUMS

The three options would affect FEHB premiums differently. Under the basic option, fewer military beneficiaries would enroll in the FEHB program than under the other two options that enrich the benefits of military beneficiaries. Because of data limitations, CBO could not estimate the effects on the average FEHB health insurance premiums for each option for various age and sex combinations. Instead, CBO analyzed the effect on the average FEHB health insurance premiums based on the entire population of eligible military beneficiaries, excluding active-duty personnel.

To estimate the effect of enrolling military beneficiaries in the FEHB program with the average FEHB premiums--based on the total population of military beneficiaries eligible to enroll in an FEHB plan--CBO compared the relative health care costs of the eligible military population with people currently covered by the FEHB program. CBO determined the difference in relative health care costs of the two groups by weighting each population group using a set of demographic factors provided by the Congressional Research Service (CRS). Demographic adjusters represent the relative health care cost difference between age and sex groups (see Table C-4). CRS developed those adjusters based on several data sources, including an analysis conducted by Hay/Huggins Company, Inc., of the commercial insured population, the 1987 National Medical Expenditure Survey, and the Office of Personnel Management.

Using those demographic adjusters, CBO calculated weighted populations for eligible military beneficiaries and those covered by the FEHB program. A comparison of those weighted populations suggests that the relative health care costs of those two different population groups are similar (see Table C-5). Both weighted population groups have health care costs that are about 7 percent lower than the population on which the demographic adjusters are based.

Note that CBO used a weight of 0.70 for beneficiaries who are 65 years of age or older, although the demographic adjuster for this age/sex group is in fact 2.50. The rationale for using a weight of 0.70 for this population group is based on the assumption that their health care costs are 70 percent of those of the average worker when Medicare is the primary payer, according to CRS. All of the FEHB options

discussed in this paper assume that Medicare would be the primary payer; the FEHB program would serve only as the secondary payer. Had the FEHB options not been constructed in this way, then CBO would have used a weight of 2.50.

TABLE C-4. DEMOGRAPHIC ADJUSTERS USED TO DETERMINE THE RELATIVE HEALTH CARE COSTS OF POPULATION GROUPS (By age and sex)

Age	Demographic Adjuster
Male	
0-4	0.94
5-14	0.36
15-17	0.71
18-24	0.50
25-34	0.55
35-44	0.73
45-64	1.48
65 and Over[a]	2.50
Female	
0-4	0.94
5-14	0.36
15-17	0.71
18-24	0.75
25-34	0.85
35-44	1.08
45-64	1.53
65 and Over[a]	2.50

SOURCE: Congressional Budget Office based on data provided by the Congressional Research Service.

NOTE: Demographic adjusters shown on this table represent the relative health costs for an individual assuming that the average health care cost for an individual is 1.0.

a. If Medicare is the primary payer, the demographic adjuster is 0.70.

TABLE C-5. AGE AND SEX DISTRIBUTION OF ELIGIBLE MILITARY BENEFICIARIES AND PEOPLE COVERED BY THE FEHB PROGRAM (In thousands)

	Military Beneficiary Population[a]			FEHB Population[b]		
Age	Actual	Weighted	Percentage Difference	Actual	Weighted	Percentage Difference
			Males			
0-4	260	246	-5.6	256	241	-5.6
5-14	501	182	-63.8	573	207	-63.8
15-17	145	103	-29.0	181	128	-29.0
18-24	176	88	-50.0	260	130	-50.0
25-34	44	24	-45.0	495	272	-45.0
35-44	173	126	-27.5	719	521	-27.5
45-64	925	1,364	47.5	1,185	1,748	47.5
65 and Over[c]	613	429	-30.0	630	441	-30.0
Total	2,838	2,561	-9.7	4,298	3,689	-14.2
			Females			
0-4	251	237	-5.6	255	241	-5.6
5-14	484	175	-63.8	586	212	-63.8
15-17	143	102	-29.0	197	140	-29.0
18-24	366	274	-25.0	278	209	-25.0
25-34	405	345	-15.0	545	463	-15.0
35-44	404	434	7.5	855	919	7.5
45-64	909	1,386	52.5	1,193	1,819	52.5
65 and Over[c]	534	374	-30.0	540	378	-30.0
Total	3,496	3,326	-4.8	4,450	4,382	-1.5
			Entire Population			
0-4	511	482	-5.6	511	482	-5.6
5-14	985	357	-63.8	1,159	420	-63.8
15-17	288	205	-29.0	378	268	-29.0
18-24	542	363	-33.1	538	339	-37.1
25-34	449	369	-17.9	1,040	736	-29.3
35-44	577	560	-3.0	1,574	1,441	-8.5
45-64	1,834	2,751	50.0	2,378	3,567	50.0
65 and Over[c]	1,147	803	-30.0	1,170	819	-30.0
Total	6,333	5,888	-7.0	8,748	8,071	-7.7

SOURCE: Congressional Budget Office computations based on the demographic adjusters provided by the Congressional Research Service.

NOTE: FEHB = Federal Employees Health Benefits.

a. Includes all eligible military beneficiaries in the United States, excluding all uniformed personnel, in fiscal year 1995.

b. Includes all individuals covered by the FEHB program, as reported in the Current Population Survey in 1994.

c. A weight of 0.70 was used to calculate the weighted population of both military beneficiaries and the population with health care coverage under the FEHB program.